CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No. 321/TT/2023

Coram:

Shri Jishnu Barua, Chairperson
Shri Arun Goyal, Member
Shri P. K. Singh, Member

Date of Order: 18.04.2024

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 1x500 MVA, 400/220 kV ICT augmentation along with associated bays at Shujalpur (PG) Sub-station under "ICT augmentation at 2x315 MVA, 400/220 kV Shujalpur (PG) Sub-station" in Western Region.

And in the matter of:

Power Grid Corporation of India Limited,
"Saudamini", Plot No. 2,
Sector 29, Gurgaon-122001 (Haryana). **…Petitioner**

Vs.

1. Madhya Pradesh Power Management Company Limited,
Shakti Bhawan, Rampur, Jabalpur-482008.

2. Madhya Pradesh Audyogik Kendra, Vikas Nigam (Indore) Limited,
3/54, Press Complex, Agra-Bombay Road, Indore-452008.

3. Maharashtra State Electricity Distribution Company Limited,
Hongkong Bank Building, 3rd Floor,
M. G. Road, Fort, Mumbai-400001.

4. Gujarat Urja Vikas Nigam Limited,
Sardar Patel Vidyut Bhawan, Race Course Road,
Vadodara-390007.

5. Electricity Department,
Government of Goa,
Vidyut Bhawan, Panaji, Near Mandvi Hotel, Goa-403001.

6. Electricity Department,
Administration of Daman & Diu, Daman-396210.

7. DNH Power Distribution Corporation Limited,
Vidyut Bhawan, 66 kV Road, Near Secretariat Amli, Silvassa-396230.

8. Chhattisgarh State Power Distribution Company Limited,
P.O. Sunder Nagar, Dangania, Raipur,
Chhattisgarh-492013.

9. Madhya Pradesh Power Transmission Company Limited,
Shakti Bhawan, Rampur,
Jabalpur-482008. **…Respondent(s)**

For Petitioner : Shri Zafrul Hasan, PGCIL

For Respondents : None

ORDER

Power Grid Corporation of India Limited has filed the instant petition for the determination of transmission tariff of 1x500 MVA, 400/220 kV ICT augmentation along with associated bays at Shujalpur (PG) Sub-station (hereinafter referred to as the “transmission asset”) under “ICT augmentation at 2x315 MVA, 400/220 kV Shujalpur (PG) Sub-station” (hereinafter referred to as the “transmission project”) in Western Region for the period from COD to 31.3.2024 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”).

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

“1) Condone the delay in the commissioning of assets covered under this petition.
2) Approve the Transmission Tariff for the tariff block 2019-24 block for the assets covered under this petition, as per para –7.
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 a 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 the 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 the petition.

6) Allow the petitioner to bill and recover Licensee fees 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 the impact on Interest on Loan due to a change in the Interest rate on account of the floating rate of interest applicable during the 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 the 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 the 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 Petitioner has submitted that the scheme was approved in the 2nd meeting of WRPC (TP) held on 4.9.2020 and the 4th meeting of the National Committee on Transmission held on 20.1.2021 and 28.1.2021.

b. CTUIL, vide letter ref: CTU/00/AI/RTM dated 16.7.2021, has assigned the implementation of the above schemes to the Petitioner under the Regulated Tariff Mechanism (RTM).

c. The Investment Approval (IA) of the transmission project was accorded by the Petitioner's CMD vide Memorandum dated 7.10.2021 at an estimated cost of ₹3283 lakh, including Interest During Construction (IDC) of ₹0.96 lakh based on June 2021 price level.

d. The Petitioner also submitted that as per the 4th meeting of the National Committee on Transmission (NCT) held on 20.1.2021 and 28.1.2021, the implementation time frame of the transmission asset has been scheduled to match the reconductoring of the 220 kV Shujalpur (PG)-Shujalpur (MP) D/C line, to be implemented by MPPTCL.

e. MPPTCL, vide letter ref: 04-02/PSP-14/1797 dated 26.7.2021, had communicated that the reconductoring of 220 kV Shujalpur (PG)-Shujalpur (MP) D/C line would be completed by October, 2022. Accordingly, it was specified in the IA that the scheduled COD of the transmission asset is October 2022.

f. The scope of work covered under the transmission project is as follows:

i. 1x500 MVA, 400/220 kV ICT augmentation along with associated bays at Shujalpur (PG)

400 kV

Transformer Bays : One

500 MVA, 400/220 kV ICT : One

220 kV

Transformer Bays : One

4. The present petition covers approval of tariff based on actual expenditure incurred up to actual COD and projected additional capitalization from COD to 31.3.2024 in respect of the transmission assets, which is as follows:

(₹ in lakh)

FR approved cost	Expenditure Up to actual COD	ACE			Estimated completion cost
		2022-23	2023-24	2024-25	
3282.98	476.14	31.14	1730.58	232.04	2469.90

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

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

Madhya Pradesh Power Management Company Limited (MPPMCL), Respondent No. 1, has filed its reply, vide affidavit dated 16.1.2024, and Maharashtra State Electricity Distribution Company Limited (MSEDCL), Respondent No. 3, has filed its reply, vide affidavit dated 15.1.2024. The Petitioner has filed its rejoinder to the reply of MPPMCL, vide affidavit dated 24.1.2024. The submissions by MPPMCL and MSEDCL and clarifications given by the Petitioner thereto have been dealt with in the relevant portions of this order.

7. The hearing in this matter was held on 15.12.2023, and the order was reserved. This order is issued considering the submissions made by the Petitioner in the petition, the Petitioner's affidavit dated 16.1.2024, MPPMCL's reply dated 16.1.2024, and the Petitioner's rejoinder vide affidavit dated 24.1.2024, and MSEDCL's reply dated 15.1.2024.

8. Having heard the learned counsels for the Petitioner and Respondents and perused the material on record, we proceed to dispose of the Petition.

DETERMINATION OF ANNUAL FIXED CHARGES FOR THE 2019-24 TARIFF PERIOD

9. The Petitioner has claimed the following transmission charges in respect of the transmission asset for the period from COD to 31.3.2024:

(₹ in lakh)

Particulars	**2022-23 (pro-rata for 78 days)**	**2023-24**
Depreciation	5.56	73.05
Interest on loan	5.54	69.82
Return on equity	5.92	77.34
Interest on working capital	2.33	13.05
O&M expenses	55.48	268.25
Total AFC	**74.83**	**501.51**

10. The Petitioner has claimed the following Interest on Working Capital (IWC) in respect of the transmission asset for the period from COD to 31.3.2024:

(₹ in lakh)

Particulars	2022-23 (pro-rata for 78 days)	2023-24
O&M Expenses	21.64	22.35
Maintenance Spares	38.94	40.24
Receivables	43.17	61.66
Total Working Capital	**103.75**	**124.25**
Rate of Interest (in %)	10.50	10.50
Interest on Working Capital	**10.89**	**13.05**
Pro rata Interest on Working Capital	**2.33**	**13.05**

Date of Commercial Operation (COD)

11. The Petitioner has claimed the COD of the transmission asset as 1.11.2022. The Petitioner has submitted that the entire scope of the transmission project is complete and is covered under the instant petition. The Petitioner has further submitted that as per the IA, the SCOD of the transmission asset was 1.11.2022, against which the Petitioner was able to achieve the COD on 13.1.2023. Thus, there is a time over-run of 73 days. The Petitioner has attributed the time over-run of 73 days to challenges posed by the outbreak of the third wave of COVID-19, which disrupted the global supply chain. The Petitioner also added that it was required to complete the works matching with the completion of reconductoring works of 220 kV Shujalpur (PG)-Shujalpur (MP) D/C line being carried out by MPPTCL, which was completed by MPPTCL on 7.12.2022.

12. In support of the transmission asset's COD , the Petitioner has submitted a copy of the CEA certificate dated 16.12.2022, WRLDC certificate dated 13.2.2023, COD letter dated 13.2.2023 and CMD certificate.

13. We have considered the Petitioner's submissions. Taking into consideration the documents submitted by the Petitioner, the COD of the transmission asset is approved as 13.1.2023.

Capital Cost

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

*"**19 Capital Cost:** (1) The Capital cost of the generating station or the transmission system, as the case may be, as determined by the Commission after prudence check in accordance with these regulations shall form the basis for determination of tariff for existing and new projects.*
(2) The Capital Cost of a new project shall include the following:
(a) The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;
(b) Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;
(c) Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period;
(d) Interest during construction and incidental expenditure during construction as computed in accordance with these regulations;
(e) Capitalised Initial Spares subject to the ceiling rates in accordance with these regulations;
(f) Expenditure on account of additional capitalization and de-capitalisation determined in accordance with these regulations;
(g) Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 7 of these regulations;
(h) Adjustment of revenue earned by the transmission licensee by using the Asset-before the date of commercial operation;
(i) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
(j) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway.
(k) Capital expenditure on account of biomass handling equipment and facilities, for co-firing;
(l) Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;
(m) Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project;
(n) Expenditure on account of change in law and force majeure events; and
(o) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.
(3) The Capital cost of an existing project shall include the following:
(a) Capital cost admitted by the Commission prior to 1.4.2019 duly trued up by excluding liability, if any, as on 1.4.2019;
(b) Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;
(c) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
(d) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
(e) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal up to the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and

(f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.
(4) The capital cost in case of existing or new hydro generating station shall also include:
(a) cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and
(b) cost of the developer's 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area.
(5) The following shall be excluded from the capital cost of the existing and new projects:
(a) The Asset-forming part of the project, but not in use, as declared in the tariff petition;
(b) De-capitalised Asset-after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:
Provided that in case replacement of transmission Asset-is recommended by Regional Power Committee, such Asset-shall be decapitalised only after its redeployment;
Provided further that unless shifting of an Asset-from one project to another is of permanent nature, there shall be no de-capitalization of the concerned asset.
(c) In case of hydro generating stations, any expenditure incurred or committed to be incurred by a project developer for getting the project site allotted by the State Government by following a transparent process;
(d) Proportionate cost of land of the existing project which is being used for generating power from generating station based on renewable energy; and
(e) Any grant received from the Central or State Government or any statutory body or authority for the execution of the project which does not carry any liability of repayment."

15. The Petitioner has submitted the Auditor's Certificate and has claimed the following capital cost incurred as on COD and has projected Additional Capital Expenditure (ACE) in respect of the transmission asset:

(₹ in lakh)

FR approved cost	Cost up to COD	Additional Capital Expenditure			Estimated completion cost
		2022-23	2023-24	2024-25	
3282.98	476.14	31.14	1730.58	232.04	2469.90

16. The Petitioner has submitted that as against the FR approved cost of ₹3283.98 lakh, the estimated completion cost is ₹2469.90 lakh. Therefore, there is no cost overrun in the case of the transmission asset. The Petitioner has submitted that the variation in the cost is due to a decrease in the sub-station equipment, including initial spares, and a decrease in the IDC and IEDC. The detailed reasons submitted by the Petitioner for the cost variation are as follows:

a. Sub-station Equipment including Initial Spares-decrease of ₹412 lakh

As regards item-wise cost variation, an open competitive bidding route is followed for procuring the items by providing equal opportunity to all eligible firms, the lowest possible market prices for required products/ services are obtained, and contracts are awarded based on the lowest evaluated eligible bidder. The best competitive bid prices against tenders may be lower or higher than the cost estimate, depending upon prevailing market conditions. As regards the variation in the cost of individual items in sub-station packages, the packages under the scope of works comprise a large number of items, and the same are awarded through open competitive bidding. In the said bidding process, bids are received from multiple parties quoting different rates for various BOQ items under the said package. Further, the lowest bidder can be arrived at/evaluated on an overall basis. Hence, item-wise unit prices in contracts and their variation over the unit rate considered in FR estimates are beyond the control of the Petitioner.

b**. IDC-decrease of ₹095 lakh**

The decrease in IDC is attributable to variation in the rate of interest considered in FR v/s Actuals, decrease in overall capital cost w.r.t. FR, and deployment of funds based on actuals. The rate of interest considered in FR was 9% on domestic loans subject to actuals vis-à-vis, which the actual IDC incurred up to COD has been considered in the Auditor certificate.

c. **IEDC and contingency-decrease of ₹306 lakh**

In IA, IEDC and contingency have been considered @ 10.75% and 3%, respectively, whereas the actual expenditure under the subject head incurred up to COD, IEDC, has been considered in the Auditor Certificate.

17. We have considered the Petitioner's submissions . We are of the view that cost variation is due to reasons beyond the Petitioner's control. Therefore, the cost variation is allowed.

<u>Time Over-run</u>

18. The Petitioner submitted that as per the IA dated 7.10.2021, the transmission project was scheduled to be put into commercial operation by 1.11.2022. The actual COD was 13.1.2023 and there is a time overrun of 73 days. The Petitioner has submitted that the time over-run was due to the time taken to match the transmission asset with the reconductoring of 220 kV Shujalpur (PG)-Shujalpur (MP) D/C line being implemented by MPPTCL and the third wave of Covid-19 pandemic. The detailed reason submitted by the Petitioner for the time over-run is as follows:

a. **Matching timeline with reconductoring works being executed by MPPTCL**

As per the 4th meeting of the National Committee on Transmission (NCT) held on 20.1.2021 and 28.1.2021, the implementation time frame of the transmission asset was to be scheduled so as to match the completion of the reconductoring of 220 kV Shujalpur (PG)-Shujalpur (MP) D/C line being implemented by MPPTCL. MPPTCL vide letter ref: 04-02/PSP-14/1797 dated 26.7.2021, had communicated that the reconductoring of 220 kV Shujalpur (PG)-Shujalpur (MP) D/C line would be completed by October 2022. Accordingly, in the IA, the SCOD of the transmission project was kept in October 2022. Further, the implementation schedule of reconductoring works was also discussed in the 35th, 36th, and 37th JCC Meetings dated 28.3.2022, 27.6.2022, and 27.9.2022 respectively, and in the 38th JCC meeting, it was updated that the works were expected to be completed by December 2022. The Petitioner has, therefore, carried out the works matching the timeline agreed upon in the JCC meetings. MPPTCL has informed that the reconductoring of 220 kV Shujalpur (PG)- Shujalpur (MP) D/C was completed on 7.12.2022. In spite of the aforementioned constraints of a compressed schedule, the transmission asset achieved COD nearing the matching time frame of the reconductoring works.

b. Time over-run due to 3rd wave of the Covid-19 pandemic

Due to the outbreak of the third wave of Covid-19, the global supply chain was disrupted between November 2021 and February 2022. Consequently, ICT manufacturers faced constraints in the timely supply, delivery, and installation of ICT along with associated bays within the compressed IA timeline. Due to the impact of the Covid-19 pandemic third wave, the Petitioner's offices also remained functional only with a limited staff during this period.

19. In response, MPPMCL has submitted that the prayer of the Petitioner to condone the delay on account of the third wave of the Covid-19 pandemic is not justified. The effects of the third wave of Covid-19 mentioned in the petition occurred about one year before the SCOD of the transmission asset and accordingly the delay/time over-run in execution may not be attributable to Covid-19.

20. MSEDCL has submitted that the Petitioner's prayer to condone the delay on account of the Covid-19 pandemic, as the supply chain was disrupted from (November 2021 to February 2022), is not justified as there was no nationwide lockdown due to the third wave of the COVID-19 pandemic. Therefore, the Petitioner is solely liable to bear the transmission charges for the period of time over-run.

21. The Petitioner, in its rejoinder to the reply filed by MPPMCL, has reiterated its earlier submissions. The Petitioner has further submitted that MoP, taking into cognizance the

difficulties faced, issued a letter dated 13.5.2022 mandating the transmission project developers to approach the Commission for relief. The Petitioner has also submitted that the time over-run is beyond the control of the Petitioner and has prayed to condone the same.

22. We have considered the submissions of the Petitioner and the Respondents. The Petitioner has attributed the time over-run of 73 days to the third wave of the Covid-19 pandemic and the requirement to match the transmission asset with the reconductoring works being carried out by MPPTCL for the 220 kV Shujalpur (PG)-Shujalpur (MP) D/C line. MPPMCL and MSEDCL have submitted that the time over-run is attributable to the Petitioner, and it may not be condoned. As regards the Petitioner's contention that the time over-run was on account of logistical challenges faced by ICT manufacturers due to the third wave of the Covid-19 pandemic, it is observed that the Petitioner has not submitted any document to substantiate that the Petitioner was specifically affected by the third wave of Covid-19 pandemic and the period of time over-run on account of the same.

23. The Petitioner has submitted that the implementation of 500 MVA ICT along with bays at Shujalpur (PG) has been scheduled to be commissioned, matching with the reconductoring of the 220 kV Shujalpur (PG)-Shujalpur (MP) D/C line of MPPTCL.

24. We have gone through the submissions of the Petitioner. The relevant extracts of the minutes of the 4th meeting of "The National Committee on Transmission" (NCT) held on 20.1.2020 and 28.1.2020 are as follows:

> ***5.2 System Strengthening at Shujalpur on account of operational constraints ((n-1) non compliance):***
>
> *5.2.1 The operation feedback of NLDC for the period October 15- March 16 was discussed in the 40th meeting of SCMPSPWR held on 01/06/2016, which interalia included the issue of ICT constraint at Shujalpur (PG). It was observed that loading on ICTs at Shujalpur (2X315 MVA) are above 200 MW and additional ICT has to be proposed. In the meeting, MPPTCL suggested that the issue of ICT overloading would be resolved with coming of RE*

generations in Shujalpur area. However, if sustained overloading of ICT is observed, then augmentation may be taken up.

5.2.2 Subsequently, in the 2nd meeting of WRPC(TP) held on 04.09.2020, based on POSOCO's inputs regarding persistence of (n-1) non-compliance at Shujalpur (PG), 1x500MVA, 400/220kV ICT augmentation at 2x315 MVA, 400/220 kV Shujalpur (PG) has been agreed. Also, it was observed that with additional ICT at Shujalpur, loading on the Shujalpur (PG) - Shujalpur (MPPTCL) 220 kV D/C line would further increase. Therefore, Reconductoring of Shujalpur (PG)-Shujalpur (MP) 220kV D/c line (conductor with ampacity equivalent to ACSR twin moose at nominal voltage) under Intra-state by MPPTCL has also been agreed.
The following System Strengthening at Shujalpur on account of operational constraints ((n-1) noncompliance) has been agreed in 2nd meeting of WRPC (TP):

A. ICT Augmentation of 2x315 MVA, 400/220 kV Shujalpur(PG) substation under ISTS by 1x500MVA, 400/220kV ICT augmentation at Shujalpur (PG)

B. Re-conductoring of Shujalpur (PG)-Shujalpur (MP) 220kV D/c line (conductor with ampacity equivalent to ACSR twin moose at nominal voltage) under Intra –state by MPPTCL.

5.2.3 Director, CEA informed that MPPTCL vide its letter dated 01.12.2020 has enquired whether the above proposed system strengthening works was associated with Phase-II works of power evacuation from Rajgarh SEZ or it was to be taken up independently. MPPTCL has further submitted that HTLS conductor equivalent to ACSR twin moose capacity for 220 kV may not be available in Indian Market and it may not be possible to use conductor with ampacity equivalent to ACSR twin moose at nominal voltage on the existing towers of 220 kV Shujalpur (PG)-Shujalpur (MP) 220kV D/c line. MPPTCL has requested for confirmation of conductor capacity requirement whether ACSR twin moose or twin Zebra.

5.2.4 Members deliberated and agreed that both the schemes (ICT augmentation at Shujalpur under inter-state and 220 kV line reconductoring under intra-state) was required to overcome operational constraints and were not to be linked with Rajgarh SEZ evacuation system. Further, both the scheme needs to be implemented in similar time frame.
5.2.5 Director, CEA stated that the confirmation of the conductor ampacity requirement whether ACSR twin moose or twin Zebra would be deliberated and confirmed to MPPTCL in the next WRPC-TP.

5.2.6 After detailed deliberations, NCT approved the following transmission scheme to be implemented under ISTS

ICT Augmentation at 2x315 MVA, 400/220 kV Shujalpur(PG) substation under ISTS by 1x500MVA, 400/220kV ICT augmentation at Shujalpur (PG) alongwith associated bays

Implementation time frame: In matching time frame of Reconductoring of Shujalpur (PG) Shujalpur (MP) 220kV D/c line by MPPTCL"

25. MPPTCL, vide letter dated 26.7.2021, had communicated that the reconductoring of the 220 kV Shujalpur(PG)-Shujalpur(MP) D/c line would be completed by October, 2022. The Relevant extracts of the letter dated 26.7.2021 are as follows:

File No. CC-CP-16-11/0035/2021/CP Grp3 (Computer No. 384302) 169

File No. CC-CE-11-11/0011/2021/CE Grp1 (Computer No. 372466) 59

Note No. #1 Attachment:DPR Approval Note ICT at Shujalpur.pdf

Note No. #20 Attachment:MPPTCL Letter 27July21.PDF

MADHYA PRDAESH POWER TRANSMISSION CO. LTD.
(A wholly owned Govt of Madhya Pradesh Undertaking)
CIN: U40109MP2001SGC014880
Block No.2, Shakti Bhawan,Rampur, Jabalpur (MP)-482008. Tel : (0761) 2702132,2242
Fax No.:(0761) 2660908. e-mail: cepsp321@yahoo.com/ce.psd@mptransco.nic.in

No. 04-02/PSP-14/ 1797 Jabalpur, Date: 27.7.21

To,

Shri Ashok Pal,
Dy.Chief Operating Officer (CTU-WR Planning),
Power Grid Corporation of India (PGCL),
"Saudamini", Plot No.2, Sector-29,
GURGAON (HARYANA)-122001.

E-mail : ashok@powergrid.in

Sub: ICT augmentation at 2x315 MVA, 400/220kV Shujalpur(PG) S/s.
Ref: Your E-mail dated 19.07.2021

On the subject matter in reference to E-mail dated 19.07.2021 from Shri Pratyush Singh, Manager(CTU) regarding implementation time line of re-conductoring work, it is to intimate that re-conductoring work of Shujalpur(PG)-Shujalpur(MP) 220kV line is scheduled for completion up to Octorber-2022. It is, therefore, rquested to kindly ensure installation of additional ICT at Shujalpur(PG) S/s accordingly.

Chief Engineer (Plg. & Design)
MPPTCL-Jabalpur

Copy to :-
1. The Executive Director, Power Grid Corporation of India Ltd.(PGCIL), WRTS-II, Regional Head Quarters, Plot No.54, Near Riya Revti Resort, Sama Savli Road, Vadodara-390008 (GJ).
2. The Chief Engineer (Procurement), MPPTCL, Jabalpur

26. From the above, it is observed that 500 MVA ICT along with bays at Shujalpur (PG) has been scheduled to be commissioned matching with the reconductoring of 220 kV Shujalpur (PG)-Shujalpur (MP) D/C line of MPPTCL (October 2022) by the Petitioner. MPPTCL completed the reconductoring works of the 220 kV Shujalpur (PG)-Shujalpur (MP) D/C line on 7.12.2022, and thereafter, the Petitioner completed the 500 MVA ICT on 13.1.2023. We are of the view that the said assets were required to be completed matching with the reconductoring works of the 220 kV Shujalpur (PG)-Shujalpur (MP) D/C line. Therefore, the delay of 36 days on account of matching COD with the MPPTCL line is condoned. However, in the absence of any evidence of direct impact on the works due to the third wave of Covid-19, the delay of 37 days beyond 7.12.2022 is not condoned.

27. As discussed above, out of the total time overrun of 73 days in commissioning of the instant transmission asset, 36 days are condoned. However, the delay of 37 days beyond 7.12.2022 is not condoned.

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

28. The Petitioner has submitted that the entire IEDC incurred has been discharged up to COD. Further, with regard to IDC, the Petitioner submitted that the accrued IDC of `0.82 lakh has been excluded from the capital cost as on COD and has been claimed after it was discharged as part of additional capitalization incurred in 2022-23.

29. The Commission has allowed IDC and IEDC till 7.12.2022. As the Petitioner has drawn a loan after 7.12.2022, the entire IDC of ₹1.19 lakh claimed has been disallowed. Further, the Petitioner has claimed an IEDC of ₹78.74 lakh and has submitted an Auditor's Certificate in support of the same, out of which an amount of ₹6.29 lakh has been disallowed on account of partial condonation of time over-run.

30. The Commission has computed the allowable IDC and IEDC after pro-rata excluding the IDC and IEDC corresponding to delay not condoned. The IDC and IEDC allowed is as follows:

(₹ in lakh)

IDC claimed	IDC disallowed	IDC allowed	IEDC claimed	IEDC disallowed due to time over-run not condoned	IEDC allowed
1.19	1.19	0.00	78.74	6.29	72.45

Initial Spares

31. 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 the 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) GIS Insulated Sub-station
- (Green Field): 5.00%
- (Brown Field): 7.00%
(v) Communication System: 3.50%
(vi) Static Synchronous Compensator: 6.00%"

32. Initial Spares have been claimed by the Petitioner as follows:

(₹ in lakh)

Head	Plant and Machinery cost for calculation of Initial Spares	Ceiling limit as per Regulations (in %)	Allowable Initial Spares	Initial Spares claimed	Excess Initial Spares
Sub-station	2369.97	6	142.91	131.03	Nil

33. The Petitioner has submitted that the Initial Spares claimed under the sub-station are within the allowable limits as per the 2019 Tariff Regulations.

34. We have considered the Petitioner's submissions. Initial Spares are allowed as per the percentage of the Plant and Machinery cost. The Petitioner's claim is within the norm under the 2019 Tariff Regulations, and it is, accordingly, allowed. The Initial Spares allowed for the transmission asset are as follows:

(₹ in lakh)

Head	Plant and Machinery cost for calculation of initial spares (A)	Ceiling limit as per Regulations (in %) (X)	Allowable Initial Spares C= (A-B)*X/(100-X)	Initial Spares claimed (B)
Sub-station	2369.97	6	142.91	131.03

Capital Cost allowed as on COD.

35. Accordingly, the capital cost allowed in respect of the transmission asset as on COD is as follows:

(₹ in lakh)

Capital cost claimed till COD	Less: IDC disallowed	Less: IEDC disallowed	Capital cost as on COD
476.14	1.19	6.29	468.66

Additional Capital Expenditure (“ACE”)

36. The Petitioner has submitted that the admissibility of ACE incurred after COD is to be dealt with in accordance with the provisions of Regulation 24 of the 2019 Tariff Regulations. Regulation 24 and Regulation 25 of the 2019 Tariff Regulations provide as follows:

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

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

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

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

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

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

(2) In case of replacement of assets deployed under the original scope of the existing project after cut-off date, the additional capitalization may be admitted by the

Commission, after making necessary adjustments in the gross fixed assets and the cumulative depreciation, subject to prudence check on the following grounds:

(a) The useful life of the assets is not commensurate with the useful life of the project and such assets have been fully depreciated in accordance with the provisions of these regulations;

(b) The replacement of the asset or equipment is necessary on account of change in law or Force Majeure conditions;

(c) The replacement of such asset or equipment is necessary on account of obsolescence of technology; and

(d) The replacement of such asset or equipment has otherwise been allowed by the Commission."

37. The Petitioner has submitted that the element-wise details of ACE claimed have already been submitted in Form-7. The Petitioner has submitted that the additional capitalization is on account of any undischarged liability towards final payment/withheld payment due to contractual exigencies for works executed within the cut-off date under Regulations 24(1)(a) and 24(1)(b) of the 2019 Tariff Regulations.

38. The Petitioner has submitted the following details of the liability flow statement:

(₹ in lakh)

Head/Part wise	Particulars	Discharged Amount		
		COD to 31.3.2023	Projected for 2023-24	Projected for 2024-25
Due to Unexecuted work				
Toshiba T&D systems (India) Private	Sub-station	30.01	1687.09	213.51
	IT Equipment	1.13	13.49	13.53
	Civil	-	20.00	-
Toshiba T&D systems (India) Private Due to discharge liability	Sub-station	-	9.93	4.97
	IT Equipment	-	0.07	0.03
	Civil	-	-	-
Total		**31.14**	**1730.58**	**232.04**

39. The COD of the transmission asset is 13.1.2023, and the cut-off date of the transmission project is 13.1.2026. The projected ACE in 2024-25 is not allowed in this petition, and the same shall be dealt with in the 2024-29 tariff period as per the applicable tariff regulations.

40. We have gone through the Petitioner's submissions. The ACE is approved as the same was envisioned in the original scope of work and is allowed under Regulation 24(1)(a) and Regulation 24(1)(b) of the 2019 Tariff Regulations. The ACE allowed is as follows:

(₹ in lakh)

Particulars	Capital cost as on COD	2022-23	2023-24	Capital cost as on 31.3.2024
ACE	468.66	31.14	1730.58	2230.38

Debt-Equity Ratio

41. Regulations 18 of the 2019 Tariff Regulations provides as follows:

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

Provided that:
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."

42. The Petitioner has claimed a debt-equity ratio of 70:30, and the same has been considered by the Commission in accordance with Regulation 18 and is as follows:

Particulars	**Capital cost as on COD (₹ in lakh)**	**(in %)**	**Capital cost as on 31.3.2024 (₹ in lakh)**	**(in %)**
Debt	328.06	70.00	1561.26	70.00
Equity	140.60	30.00	669.11	30.00
Total	**468.66**	**100.00**	**2230.38**	**100.00**

Depreciation

43. 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 Asset-of the generating station and transmission system:

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

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

44. The Commission has considered the Petitioner's submissions. The IT equipment has been considered as part of the gross block and depreciated using the Weighted Average Rate of Depreciation (WAROD). WAROD has been worked out and placed as the Annexure after considering the depreciation rates of IT and non-IT assets as prescribed in the 2019 Tariff Regulations. The salvage value of IT equipment has been considered nil, i.e., IT assets have been considered 100% depreciable. Depreciation allowed for the transmission asset for the period from its COD to 31.3.2024 is as follows:

(₹ in lakh)

	Particulars	**2022-23 (pro-rata for 78 days)**	**2023-24**
A	Opening Gross Block	468.66	499.80
B	Addition during the year 2019-24 due to projected ACE	31.14	1730.58
C	Closing Gross Block (A+B)	499.80	2230.38
D	Average Gross Block (A+C)/2	484.23	1365.09
E	Average Gross Block (90% depreciable assets)	483.10	1350.40
F	Average Gross Block (100% depreciable assets)	1.13	14.69
G	Depreciable value (excluding IT equipment and software) (E*90%)	434.79	1215.36
H	Depreciable value of IT equipment and software (F*100%)	1.13	14.69
I	Total Depreciable Value (G+H)	435.92	1230.05
J	Weighted average rate of Depreciation (WAROD) (in %)	5.29%	5.32%
K	Lapsed useful life at the beginning of the year (Year)	0	1
L	Balance useful life at the beginning of the year (Year)	25	24
M	**Depreciation during the year (D*J)**	**5.48**	**72.65**
N	Cumulative Depreciation at the end of the year	5.48	78.13
O	Remaining Aggregate Depreciable Value at the end of the year	430.44	1151.92

<u>Interest on Loan (IoL)</u>

45. 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 decapitalization of asset, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of de-capitalisation of such asset.

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

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

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

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

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

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

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

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

47. IoL has been worked out in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL allowed in respect of the transmission asset for the period from its COD to 31.3.2024 is as follows:

(₹ in lakh)

	Particulars	2022-23 (pro-rata for 78 days)	2023-24
A	Gross Normative Loan	328.06	349.86
B	Cumulative Repayments up to Previous Year	0.00	5.48
C	Net Loan-Opening (A-B)	328.06	344.38
D	Addition due to ACE	21.80	1211.41
E	Repayment during the year	5.48	72.65
F	Net Loan-Closing (C+D-E)	344.38	1483.14
G	Average Loan (C+F)/2	336.22	913.76
H	Weighted Average Rate of Interest on Loan (in %)	7.60%	7.60%
I	**Interest on Loan (G*H)**	**5.46**	**69.45**

Return on Equity (RoE)

48. 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 due to Change in Law, 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:

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

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

Illustration-

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

Rate of return on equity = 15.50/(1-0.2155) = 19.758%

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

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

(3) The generating company or the transmission licensee, as the case may be, shall true up the grossed up rate of return on equity at the end of every financial year based on actual tax

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

49. The Petitioner has submitted that the MAT rate is applicable to it. MAT rate applicable has been considered for the purpose of RoE which shall be trued up with actual tax rate in accordance with Regulation 31(3) of the 2019 Tariff Regulations. RoE allowed in respect of the transmission assets for the period from its COD to 31.3.2024 is as follows:

(₹ in lakh)

	Particulars	**2022-23 (pro-rata for 78 days)**	**2023-24**
A	Opening Equity	140.60	149.94
B	Addition due to ACE	9.34	519.17
C	Closing Equity (A+B)	149.94	669.11
D	Average Equity (A+C)/2	145.27	409.53
E	Return on Equity (Base Rate) (in %)	15.50	15.50
F	Tax Rate applicable (in %)	17.472	17.472
G	Rate of Return on Equity (Pre-tax) (in %)	18.782	18.782
H	**Return on Equity (Pre-tax) (D*G)**	**5.83**	**76.92**

<u>Operation & Maintenance Expenses (O&M Expenses)</u>

50. O&M Expenses claimed by the Petitioner for the 2019-24 tariff period are as follows:

(₹ in lakh)

Particulars	**2022-23 (pro-rata for 78 days)**	**2023-24**
O&M Expenses	55.48	268.25

51. Regulation 35(3)(a) of the 2019 Tariff Regulations provide as follows:

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

Particulars	***2019-20***	***2020-21***	***2021-22***	***2022-23***	***2023-24***
Norms for sub-station Bays (₹ Lakh per bay)					
765 kV	*45.01*	*46.60*	*48.23*	*49.93*	*51.68*
400 kV	*32.15*	*33.28*	*34.45*	*35.66*	*36.91*
220 kV	*22.51*	*23.30*	*24.12*	*24.96*	*25.84*
132 kV and below	*16.08*	*16.64*	*17.23*	*17.83*	*18.46*
Norms for Transformers (₹ Lakh per MVA)					
765 kV	*0.491*	*0.508*	*0.526*	*0.545*	*0.564*

Particulars	***2019-20***	***2020-21***	***2021-22***	***2022-23***	***2023-24***
400 kV	*0.358*	*0.371*	*0.384*	*0.398*	*0.411*
220 kV	*0.245*	*0.254*	*0.263*	*0.272*	*0.282*
132 kV and below	*0.245*	*0.254*	*0.263*	*0.272*	*0.282*
Norms for AC and HVDC lines (₹ Lakh per km)					
Single Circuit (Bundled Conductor with six or more sub-conductors)	*0.881*	*0.912*	*0.944*	*0.977*	*1.011*
Single Circuit (Bundled conductor with four sub-conductors)	*0.755*	*0.781*	*0.809*	*0.837*	*0.867*
Single Circuit (Twin & Triple Conductor)	*0.503*	*0.521*	*0.539*	*0.558*	*0.578*
Single Circuit (Single Conductor)	*0.252*	*0.26*	*0.27*	*0.279*	*0.289*
Double Circuit (Bundled conductor with four or more sub-conductors)	*1.322*	*1.368*	*1.416*	*1.466*	*1.517*
Double Circuit (Twin & Triple Conductor)	*0.881*	*0.912*	*0.944*	*0.977*	*1.011*
Double Circuit (Single Conductor)	*0.377*	*0.391*	*0.404*	*0.419*	*0.433*
Multi Circuit (Bundled Conductor with four or more sub-conductor)	*2.319*	*2.401*	*2.485*	*2.572*	*2.662*
Multi Circuit (Twin & Triple Conductor)	*1.544*	*1.598*	*1.654*	*1.713*	*1.773*
Norms for HVDC stations					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	*834*	*864*	*894*	*925*	*958*
Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)	*1,666*	*1,725*	*1,785*	*1,848*	*1,913*
500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)	*2,252*	*2,331*	*2,413*	*2,498*	*2,586*
±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)	*2,468*	*2,555*	*2,645*	*2,738*	*2,834*
±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)	*1,696*	*1,756*	*1,817*	*1,881*	*1,947*
±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)	*2,563*	*2,653*	*2,746*	*2,842*	*2,942*

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

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

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

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

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

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

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

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

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

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

52. The O&M Expenses approved for the transmission asset for the period from its COD to 31.3.2024 is as follows:

(₹ in lakh)

Particulars	2022-23 (pro-rata for 78 days)	2023-24
O&M Expenses	55.48	268.25

<u>Interest on Working Capital (IWC)</u>

53. 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:-*

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

54. 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 the COD of the transmission project. The Petitioner has considered the IWC rate as 10.50%.

55. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The Rate of Interest (RoI) considered is 10.50% for 2022-23 (SBI 1-year MCLR applicable as on 1.4.2022 of 7.00% plus 350 basis points), and for 2023-24 Rate of Interest (ROI) is considered as 12.00% (SBI 1-year MCLR applicable as on 1.4.2023 of 8.50% plus 350 basis points). The components of the working capital and interest allowed thereon for the transmission asset for the period from its COD to 31.3.2024 is as follows:

(₹ in lakh)

Particulars	**2022-23 (pro-rata for 78 days)**	**2023-24**
Working Capital for O&M Expenses (O&M Expenses for one month)	4.62	22.35
Working Capital for Maintenance Spares (15% of O&M Expenses)	8.32	40.24
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost /annual transmission charges)	9.17	61.74
Total Working Capital	22.12	124.24
Rate of Interest for working capital (in %)	10.50%	12.00%
Interest on working capital	**2.32**	**14.92**

<u>Annual Fixed Charges for the 2019-24 Tariff Period</u>

56. The transmission charges allowed for the transmission asset for the period from its COD to 31.3.2024 are as follows:

(₹ in lakh)

Particulars	**2022-23 (pro-rata for 78 days)**	**2023-24**
Depreciation	5.48	72.65
Interest on Loan	5.46	69.45
Return on Equity	5.83	76.92
O&M Expenses	55.48	268.25
Interest on Working Capital	2.32	14.92

Particulars	2022-23 (pro-rata for 78 days)	2023-24
Total	**74.57**	**502.19**

Filing Fee and Publication Expenses

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

Licence Fee and RLDC Fees and Charges

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

Goods and Services Tax

59. The Petitioner has submitted that if GST is levied at any rate and at any point of time in the 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.

60. The Respondents MPPMCL and MSEDCL have opposed the Petitioner’s request as it is premature at this stage and have submitted that nothing can be allowed in anticipation of something that has not occurred.

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

Sharing of Transmission Charges

62. With effect from 1.11.2020, the sharing of transmission charges is governed by the provisions of the 2020 Sharing Regulations. Accordingly, the billing, collection, and disbursement of transmission charges approved in this order for the transmission asset shall be recovered in terms of provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.

63. To summarize, AFC allowed in respect of the transmission asset for the 2019-24 tariff period in this order are as follows:

(₹ in lakh)

Particulars	**2022-23 (pro-rata for 78 days)**	**2023-24**
AFC	**74.57**	**502.19**

64. The Annexure to this order forms part of the order.

65. This order disposes of Petition No. 321/TT/2023 based on the above findings and discussions.

sd/-	sd/-	sd/-
(P. K. Singh)	**(Arun Goyal)**	**(Jishnu Barua)**
Member	**Member**	**Chairperson**

Annexure

(₹ in lakh)

Capex	Admitted Capital Cost as on COD	Projected ACE		Admitted Capital Cost as on 31.3.2024	Depreciation Rate (in %)	Annual Depreciation	
		2022-23	2023-24			2022-23	2023-24
Building	0.00	0.00	20.00	20.00	3.34	0.00	0.33
Substation	468.66	30.01	1697.02	2195.69	5.28	25.54	71.13
PLCC	0.00	0.00	0.00	0.00	6.33	0.00	0.00
IT Equipment	0.00	1.13	13.56	14.69	15.00	0.08	1.19
Total	**468.66**	**31.14**	**1730.58**	**2230.38**		**25.62**	**72.65**
					Average Gross Block	**484.23**	**1365.09**
					WAROD (in %)	**5.29%**	**5.32%**