CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No. 271/TT/2022

Coram:

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

Date of Order: 22.02.2023

In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 for determination of transmission tariff from COD to 31.3.2024 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 in respect of Establishment of 2 Nos. of 765 kV GIS Bays along with Line Reactor (non-Switchable) at Varanasi GIS end and 2 Nos. of 765 kV AIS Bays at Vindhaychal Pooling Sub-station for 765 kV D/C Vindhyachal Pooling-Varanasi Line under "POWERGRID works associated with the new WR-NR 765 kV inter-regional corridor''.

And in the matter of:

Power Grid Corporation of India Limited
SAUDAMINI, Plot No-2,
Sector-29, Gurgaon-122 001 (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 Complext, 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 Amli,
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.

12. Gujarat Power Corporation Limited,
Block No. 8, Sixth Floor,
Udhyog Bhavan, Sector 11,
Gandhinagar-382011.

13. Rajasthan Rajya Vidyut Prasaran Nigam Limited,
Vidyut Bhawan, Vidyut Marg,
Jaipur-302005 (Rajasthan).

14. Ajmer Vidyut Vitran Nigam Limited,
400 kV GSS Building (Ground Floor),
Ajmer Road, Heerapura, Jaipur (Rajasthan).

15. Jaipur Vidyut Vitran Nigam Limited,
400 kV GSS Building (Ground Floor),
Ajmer Road, Heerapura, Jaipur (Rajasthan).

16. Jodhpur Vidyut Vitran Nigam Limited,
400 kV GSS Building (Ground Floor),

Ajmer Road, Heerapura, Jaipur (Rajasthan).

17. Himachal Pradesh State Electricity Board Limited,
Vidyut Bhawan, Kumar House Complex Building II,
Shimla-171004 (Himachal Pradesh).

18. Punjab State Power Cooperation Limited,
Therma Shed TIA,
Near 22 Phatak,
Patiala-147001 (Punjab).

19. Haryana Power Purchase Centre,
Shakti Bhawan, Sector-6,
Panchkula-134109 (Haryana).

20. Power Development Department,
Government of Jammu & Kashmir,
Mini Secretariat, Jammu.

21. Uttar Pradesh Power Corporation Limited,
Shakti Bhawan, 14, Ashok Marg,
Lucknow-226001 (Uttar Pradesh).

22. Delhi TRANSCO Limited,
Shakti Sadan, Kotla Road,
New Delhi-110002.

23. BSES Yamuna Power Limited,
B-Block Shakti Kiran Building (Near Karkardooma Court),
Karkardooma 2nd Floor,
New Delhi-110092.

24. BSES Rajdhani Power Limited,
BSES Bhawan, Nehru Place,
New Delhi-110019.

25. Tata Power Delhi Distribution Limited (TPDDL),
NDPL House, Hudson Lines Kingsway Camp,
Delhi-110009.

26. Chandigarh Administration,
Sector-9, Chandigarh.

27. Uttarakhand Power Corporation Limited,
Urja Bhawan,
Kanwali Road, Dehradun (Uttarakhand).

28. North Central Railway,
Allahabhad (Uttar Pradesh).

29. New Delhi Municipal Council,
Palika Kendra, Sansad Marg,
New Delhi-110002.

30. Power Grid Varanasi Transmission System Limited,
C-27/210, Kailgarh House, Hindustan Times Office,
Jagatganj, Varanasi-221002 (Uttar Pradesh). **...Respondent(s)**

For Petitioner : Shri S. S Raju, PGCIL
Shri D. K. Biswal, PGCIL
Shri Ved Rastogi, PGCIL
Shri Zafrul Hassan, PGCIL
Shri Vipin Joseph, PGCIL

For Respondent : Shri Ravi Sharma, Advocate, MPPMCL
Shri Anindya Khare, MPPMCL

ORDER

The instant petition has been filed by Power Grid Corporation of India Limited, a deemed transmission licensee, for determination of transmission 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 "Establishment of 2 Numbers of 765 kV GIS Bays along with Line Reactor (non-Switchable) at Varanasi GIS end and 2 Numbers of 765 kV AIS Bays at Vindhyachal Pooling Sub-station for 765 kV D/C Vindhyachal Pooling-Varanasi Line" (hereinafter referred to as "the transmission asset") under "POWERGRID works associated with the new WR-NR 765 kV inter-regional corridor" (hereinafter referred to as the "transmission project") in the Western Region-Eastern Region.

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

"1) Condone the delay in commissioning of the asset as the reasons mentioned at

para 6 are beyond the control of petitioner and allow IDC and IEDC as claimed in the petition.

2) *Admit the capital cost as claimed in the Petition and approve the Additional Capitalisation incurred / projected to be incurred.*
3) *Approve the Transmission Tariff for the tariff block 2019-24 block for the asset covered under this petition, as per para –8.2 above.*
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 claim the overall security expenses and consequential IOWC on that security expenses separately.*
9) *Allow the petitioner to claim the capital spares at the end of tariff block as per actual.*
10) *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.*
11) *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.*
12) *Allow Final tariff in accordance with Regulation 10 (5) 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 358th meeting held on 20.9.2018 vide

Memorandum No. C/CP/PA1617-09-0P-IA010 dated 12.10.2018 at an estimated cost of ₹26491 lakh including an IDC of ₹1703 lakh based on June, 2018 price level.

b. The scope of work covered under the transmission project broadly includes:

<u>Sub-station Extension</u>

(i) Vindhyachal Pooling Station:

<u>765 kV</u>

- Line Bays: 2 Numbers

(ii) Varanasi GIS Sub-station:

<u>765 kV</u>

- Line Bays (GIS): 2 Numbers
- 330 MVAR Line Reactor (non-switchable): 2 Numbers

c. As per IA dated 20.9.2018, the transmission asset was scheduled to be put into commercial operation within 32 months from the date of IA i.e. by 20.5.2021. However, the transmission asset was put into commercial operation on 1.8.2021. Thus, there is a time over-run of 73 days in case of the transmission asset.

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

5. 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 13.10.2022 has filed its reply and has raised issues of Additional Capitalisation and effects of CGST. Uttar Pradesh Power Corporation Limited (UPPCL), Respondent No. 21, vide affidavit dated 21.6.2022 has filed its reply and raised issues of Additional Capitalisation, Initial Spares, IDC and cost variation. The Petitioner has filed rejoinder to the reply of MPPMCL and UPPCL vide affidavits dated 9.11.2022 and 15.11.2022 respectively. The issues raised by MPPMCL and UPPCL and the clarifications given by the Petitioner are considered in the relevant portions of this order.

6. This order is issued considering the submissions made by the Petitioner vide affidavits dated 27.1.2022 and 15.11.2022, reply filed by MPPMCL and the Petitioner's rejoinders to the replies of MPPMCL and UPPCL.

7. The hearing in this matter was held on 24.11.2022 and 9.1.2023 through video conference and the order was reserved on 9.1.2023.

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

DETERMINATION OF ANNUAL FIXED CHARGES FOR 2019-24 TARIFF PERIOD

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

(₹ in lakh)

Particulars	2021-22 (pro-rata 243 days)	2022-23	2023-24
Depreciation	597.05	991.80	1070.57
Interest on Loan	500.96	782.34	782.59
Return on Equity	635.26	1055.24	1138.69
O&M Expenses	109.17	169.76	175.71

Particulars	2021-22 (pro-rata 243 days)	2022-23	2023-24
Interest on Working Capital	26.88	43.55	45.79
Total	**1869.32**	**3042.69**	**3213.35**

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

(₹ in lakh)

Particulars	2021-22 (pro-rata 243 days)	2022-23	2023-24
O&M Expenses	13.67	14.15	14.64
Maintenance Spares	24.60	25.46	26.36
Receivables	346.17	375.12	395.08
Total Working Capital	384.44	414.74	436.08
Rate of Interest (in %)	10.50	10.50	10.50
Interest on Working Capital	**26.88**	**43.55**	**45.79**

Data of Commercial Operation ("COD")

11. The Petitioner has claimed the date of commercial operation in respect of the transmission asset as 1.8.2021. Regulation 5(1) and Regulation 5(2) 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."

12. In support of actual COD of the transmission asset, the Petitioner has submitted CEA Energisation Certificates dated 5.3.2021 and 5.7.2021 under Regulation 43 of the Central Electricity Authority (CEA) (Measures relating to Safety and Electric Supply) Regulations, 2010, WRLDC Charging Certificate dated 11.10.2021, self-declaration COD letter dated 2.8.2021 and CMD certificate as required under the Grid Code.

13. Taking into consideration the CEA Energization Certificate, WRLDC Charging Certificate, self-declaration COD letter and CMD Certificate, the COD of the transmission asset is approved as 1.8.2021.

<u>Capital Cost</u>

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 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."

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

(₹ in lakh)

FR Approved Cost	**Expenditure up to COD**	**Projected ACE**			**Estimated completion cost**
		2021-22	**2022-23**	**2023-24**	
26491.00	16136.19	1831.53	1585.21	1310.54	20864.19

Cost Over-run

16. The Petitioner has submitted that the approved cost as per FR is ₹26491 lakh and the estimated completion cost is ₹20864 lakh. Thus, there is no cost over-run in case of the transmission asset.

17. UPPCL has submitted that the cost estimate in IA is on higher side by ₹1946 lakh and, hence, the IA estimate might not be considered for determination of tariff and cost over-run. UPPCL has submitted that the Petitioner claims original cost estimate in IA is sufficiently high so that actual expenditure is always less than the approved cost so that there is no cost over-run. The Commission may consider the rationalised cost of ₹24289.00 lakh for the purpose of determination of tariff. The Petitioner has not provided BOQ rates and overall awards cost in the petition. Due to this it is not possible to analyse the cost variation with respect to BOQ rate/cost.

18. In response, the Petitioner has submitted that as per the IA the capital cost of the transmission asset is ₹26491 lakh, whereas the estimated completion cost claimed in the instant petition is ₹20864 lakh. Thus, there is a variation of ₹5627 lakh w.r.t. approved cost. The reasons for item wise cost variation between approved cost (FR) and estimated completion cost are given in Form-5. Further, the cost variation is attributable to decrease in cost of sub-station equipment, based on awarded/ executed cost w.r.t. FR Cost, decrease in IEDC based on actuals and decrease in IDC, as per following:

- **Decrease in sub-station equipment cost**

  The Petitioner has submitted that for procurement, open competitive bidding route is followed by providing equal opportunity to all eligible firms, lowest possible market prices for required product/services is obtained and contracts are awarded on the basis of lowest evaluated eligible bidder. The best competitive bid prices against tenders may happen to be lower or higher than the cost estimate depending upon prevailing market conditions. The packages under subject scope of works comprise of a large number of items and the same are awarded through open competitive bidding. In the said bidding process, bids are received from multiple parties quoting different rates for various BOQ items under the said package.

Further, lowest bidder can be arrived at/ evaluated on overall basis only. Hence, item-wise unit prices in contracts and its variation over unit rate considered in FR estimates are beyond the control of the Petitioner. Further, while preparing FR Cost Estimate of projects, provision of Contingencies is kept on normative basis, to take care of unforeseen uncertainties.

- **Decrease in IEDC:**

  In IA, IEDC and Contingency has been considered @10.75% and 3% of Hard Cost (Cost excluding IEDC & IDC) respectively, whereas IEDC in the Auditor Certificate has been considered based on the actual expenditure under the subject head. The said reduction in IEDC has accrued benefits to the beneficiaries in the form of reduced capital cost and tariff.

- **Decrease in IDC:**

  Decrease in IDC is attributable to variation in rate of interest based on loans deployed in the instant asset vis-a-vis rate of interest considered in FR (@ 10.5% on normative basis), decrease in overall capital cost w.r.t. FR and deployment of funds based on actuals. The said reduction in IEDC has accrued benefits to the beneficiaries in the form of reduced capital cost and tariff.

19. We have considered the submissions of the Petitioner and UPPCL. As compared to FR approved cost of ₹26491 lakh, the estimated completion cost as on 31.3.2024 is ₹20864 lakh which is lesser by ₹5627 lakh. The major reasons for reduction of capital cost is decrease in sub-station equipment cost, decrease in IEDC and IDC. The

variation in the capital cost of the transmission asset is approved. Further, the estimated completion cost is within the FR approved capital cost, therefore, there is no cost over-run with.

Time over-run

20. As stated above, there is time over-run of 73 days in case of the transmission asset. The reasons submitted by the Petitioner for time over-run in case of the transmission asset is as follows:

(i) The Covid-19 Pandemic resulted in unforeseen/ unplanned interruption and led to delay in execution of the transmission assets. Due to COVID-19 there was nationwide lockdown in phases, which are as follows

- Phase 1: 25.3.2020 to 14.4.2020 (21 days)
- Phase 2: 15.4.2020 to 3.5.2020 (19 days)
- Phase 3: 4.5.2020 to 17.5.2020 (14 days)
- Phase 4: 18.5.2020 to 31.5.2020 (14 days)

(i) The government had locked down all the cities and restricted the movement from one place to another. The movement restriction affected the supply chain, transportation shortage, worker absenteeism due to illness/quarantine/ migration labour shortages, which resulted in decrease in output and delayed all country wide ongoing projects. The lockdown imposed had complicated things further. The site was closed or access was restricted as a measure to contain the COVID-19 outbreak. The contractor was not able to carry out the work due to action taken by the government to prevent the spread of the outbreak.

(ii) Specific COVID-19 related challenges such as supplier delivery issues, worker absenteeism due to illness, delayed issuance of permits, travel restrictions, and lost time or inefficiencies due to the need to practice social distancing on the job site are just a few of the issues that had prolific cost and schedule consequences. Further, lack of engineering and technical support and supply chain disruptions were the major factors impacting project schedule and implementations. Thus, commissioning of power projects faced delays due to clogged supply lines and construction activities.

(iii) When construction resumed, additional delays and inefficiencies were faced that had the potential to increase costs and further pushed back completion dates. It was difficult to start the construction works. Localized restrictions and lockdown had further exacerbated supply chain dislocation. Besides there were many hotspots and many risks involved in immediately starting construction, as infection of even one person would lead to sealing of the construction site and all related people will be quarantined for 14-28 days. Construction had come to a grinding halt. Also, FIR would be lodged against the promoter, in this case the real estate developer/construction contractors.

(iv) Further, as per Ministry of Power (MoP), Government of India circular No. 3/1/2020-Trans dated 27.7.2020, all inter-State projects whose SCOD is beyond 25.3.2020 and which were under construction on 25.3.2020, will get an extension of 5 months in respect of SCOD due to the nationwide lockdown restrictions for containment of the spread of Covid-19 pandemic.

(v) The time over-run was beyond the control of the Petitioner and the same may be condoned under Regulation 22(2) “uncontrollable factors” of the 2019 Tariff Regulations.

21. UPPCL has made the following submissions against the Petitioner’s prayer for condonation of the time over-run in case of the instant assets:

a. The Petitioner invited bids for the project subsequent to the IA. The Petitioner has not submitted bid details. Since the IA was accorded on 12.9.2018 and the SCOD was on 20.5.2021, the project should have been at an advance stage of construction as on 25.3.2020 with all procurements done and work almost complete. The lock down subsisted only for 68 days which include the period of successive relaxations. Therefore, it cannot be assumed that 73 days delay in execution is on account of lockdown. The Petitioner has not cited any specific reason which affected the execution of the transmission asset and the Petitioner has only mentioned general impact of pandemic not specific to the project.

b. The MoP circular dated 27.7.2020 provides extension to the extent of 5 months in case of project which were under construction on 25.3.2020 and suffered delay due to lockdown. The circular does not provide for blanket extension to all projects because there was pandemic and resulted lockdown. It does not preclude the court from examination of project specific reasons for delay before accepting it.

c. In view of the above, the time over-run of 73 days may not be condoned as no specific reason or material was placed on record. The time over-run has a cost, which the beneficiaries have to bear in terms of cost over-run, increased IDC and other over heads. Therefore, the time over-run may not be condoned.

22. We have considered the submission of the Petitioner and UPPCL. The Petitioner has submitted that the time over-run is mainly on account of COVID-19 Pandemic. The MoP vide letter dated 27.7.2020 has extended the SCOD in respect of inter-State transmission project by 5 months due to COVID-19 pandemic. The relevant portion of the letter dated 27.7.2020 is as follows:

> *"Sub: Extension to TSP/Transmission Licensees for completion of under construction inter-State transmission projects*
> *Sir,*
> *I am directed to state that transmission utilities have pointed out that construction activities at various transmission project sites have been severely affected by the nationwide lockdown measures announced since 25th march, 2020 to contain outbreak of COVID-19 and have requested for extension of Scheduled Commercial Operation (SCOD) to mitigate the issues of disruption in supply chains and manpower, caused due to outbreak of COVID-19 pandemic.*
> *2. It has been, therefore, decided that;*
> *i. All inter-state transmission projects, which were under construction as on date of lock-down i.e. 25th March 2020, shall get an extension of five months in respect of SCOD*
> *ii. This order shall not apply to those projects, whose SCOD date was prior to 25th March 2020*
> *iii. Start date of Long Term Access granted to a generator by CTU based on completion of a transmission line, whose SCOD is extended by 5 months due to COVID-19 as mentioned above at point(i), shall also be extended by 5 months."*

23. There is a time over-run of 73 days in case of the instant asset. In terms of the above letter dated 27.7.2020, the revised SCOD of the transmission asset is considered as 20.10.2021. Accordingly, there is no time over-run in case of the transmission asset in terms of the revised SCOD.

24. The summary of the time over-run is as follows:

Schedule COD as per IA	Revised SCOD	Actual COD	Time over-run
20.5.2021	20.10.2021	1.8.2021	Nil

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

25. The Petitioner has claimed IDC for the transmission asset and has submitted the statement showing IDC claim, discharge of IDC liability as on COD and thereafter as follows:

(₹ in lakh)

IDC as per Auditor Certificate	IDC Discharged upto COD	IDC discharged during 2021-22	IDC discharged during 2022-23
740.21	570.42	103.42	66.38

26. We have considered the submissions of the Petitioner. As discussed above in this order, there is no time over-run in declaring the commercial operation of the transmission asset in terms of the revised SCOD. Accordingly, the 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)

IDC as per Auditor Certificate	IDC disallowed due to computational error	IDC allowed	IDC discharged upto COD	IDC discharged during 2019-20	IDC discharged during 2020-21
740.21	5.79	734.42	570.42	103.42	60.58

27. The Petitioner has claimed IEDC for the transmission asset as per the Auditor Certificate. The Petitioner has further submitted that the entire amount of IEDC for the transmission asset has been discharged up to COD. As the time over-run for the transmission asset has been fully condoned, there is no dis-allowance of IEDC. The

IEDC claimed as per Auditor's Certificate, IEDC considered and discharged up to COD is as follows:

(₹ in lakh)

IEDC claimed as per Auditor certificate (A)	IEDC disallowed due to time over-run not condoned (B)	IEDC allowed (C)=(A-B)
1175.01	0.00	1175.01

Initial Spares

28. 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%"*

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

(₹ in lakh)

Particulars	Plant and machinery cost	Initial spares claimed	Initial spares claimed (in %)	Ceiling limit mentioned as per Regulation (in %)
Sub-station	18697.12	992.26	5.30	6.00

30. UPPCL has submitted that as per Regulation 23, the cost of Initial Spares is to be calculated based on project cost excluding IDC, IEDC, land cost and cost of civil works. Based on the above submissions, the initial spares work out to ₹973.827 lakh. Therefore, initial spares claimed by the Petitioner for ₹992.26 lakh is higher than the normative cost of ₹973.827 lakh. Hence, the excess initial spare of ₹18.433 lakh should

not be allowed and prayed to consider the capital cost of ₹16230.45 lakh provided in Form-5 for the purpose of allowing Initial Spares.

31. In response, the Petitioner vide affidavit dated 15.11.2022 has submitted that the Plant and Machinery Cost has rightly been calculated and mentioned in Auditor Certificate.

32. We have considered the submissions of Petitioner and UPPCL. The Initial Spares for the transmission asset are allowed as a percentage of the Plant and Machinery Cost considering the capital cost claimed by the Petitioner as on the cut-off date. The Initial Spares claimed by the Petitioner is within the norm under Regulation 23(d) of the 2019 Tariff Regulations and accordingly it is allowed as follows:

Particulars	**Plant and Machinery cost (excluding IDC, IEDC, land cost and Cost of Civil Works) (₹ in lakh)**	**Initial Spares claimed (₹ in lakh)**	**Norms as per 2019 Tariff Regulations (in %)**	**Initial Spares allowable (₹ in lakh)**	**Initial Spares disallowed (₹ in lakh)**	**Initial Spares Allowed (₹ in lakh)**
	A	**B**	**C**	**D=(A-B)*C/(100-C)**	**E=B-D**	
Sub-station	18697.12	992.26	6.00%	1130.10	NIL	1130.10

33. Accordingly, the capital cost allowed as on COD is as follows:

(₹ in lakh)

Capital Cost claimed as on COD (Auditor Certificate) (A)	**IDC Disallowed (B)**	**Undischarged IDC as on COD (C)**	**IEDC Disallowed (D)**	**Capital Cost as on COD (E) = (A-B-C-D)**
16136.91	5.79	164.00	0.00	15967.12

Additional Capital Expenditure (ACE)

34. Regulation 24 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."

35. 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 Regulations 24(1)(a) and 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)

Capital cost as on COD	Projected ACE 2019-24			Capital Cost as on 31.3.2024
	2021-22	2022-23	2023-24	
16138.91	1831.53	1585.21	1310.54	20864.19

36. MPPMCL vide affidavit dated 13.10.2022 has submitted that the Petitioner has claimed ACE under regulation 24 of the 2019 Tariff Regulation as it is towards balance/ retention payment, without providing proper details and justification. The same may only be allowed at the stage of true-up on the basis of the actuals.

37. UPPCL has submitted that balance/retention of payments mean that all electrical and civil works have been completed but full payment to suppliers/contractor has not been made or some money retained for reasons attributable to such

suppliers/contractors. Hence, the entire ACE during 2021-24 is attributable either to the Petitioner or its suppliers/contractors and the beneficiary has no liability to pay IDC on such account in tariff.

38. In response, the Petitioner vide affidavit dated 9.11.2022 and 15.11. 2022 has submitted that the element wise details of ACE claimed has been submitted in Form-1A, Form-4A, Form-5 and Form-7 submitted in the petition and subsequent affidavit dated 15.11.2022.

39. We have considered the submissions of the Petitioner and the Respondents. The ACE claimed by the Petition towards balance & retention payments and un-executed works is allowed under Regulation 24(1)(a) and Regulation 24(1)(b) of 2019 tariff Regulations. The ACE allowed is subject to truing up in respect of the transmission asset and the same is as follows:

(₹ in lakh)

Particulars	**2021-22**	**2022-23**	**2023-24**
ACE as per Auditor's certificate	1831.53	1585.21	1310.54
Add: IDC Discharged	103.42	60.58	0.00
ACE allowed in the instant order	**1934.95**	**1645.79**	**1310.54**

40. The capital cost of the transmission asset considered for the 2019-24 tariff period is as follows:

(₹ in lakh)

Capital Cost as on COD	**Projected ACE 2019-24**			**Capital Cost as on 31.3.2024**
	2021-22	**2022-23**	**2023-24**	
15967.12	1934.95	1645.79	1310.54	20858.40

<u>Debt-Equity ratio</u>

41. 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:

1. *where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff:*
2. *the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:*
3. *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 debt-equity ratio considered for the purpose of computation of tariff for 2019-24 tariff period for the transmission asset is as follows:

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	11176.98	70.00	3423.89	70.00	14600.88	70.00
Equity	4790.14	30.00	1467.38	30.00	6257.52	30.00
Total	**15967.12**	**100.00**	**4891.28**	**100.00**	**20858.40**	**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 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."

44. We have considered the submissions of the Petitioner. The IT equipment has been considered as part of the Gross Block and depreciated using Weighted Average Rate of Depreciation (WAROD). WAROD has been worked out and placed as Annexure 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 asset has been considered as 100% depreciable. Depreciation allowed in respect of the transmission asset for 2019-24 tariff period is as follows:

(₹ in lakh)

	Particulars	**2021-22 (pro-rata 243 days)**	**2022-23**	**2023-24**
	Depreciation			
A	Opening Gross Block	15967.12	17902.07	19547.86
B	ACE	1934.95	1645.79	1310.54
C	Closing Gross Block (A+B)	17902.07	19547.86	20858.40
D	Average Gross Block (A+C)/2	16934.60	18724.96	20203.13
E	Weighted average rate of Depreciation (WAROD) (in %)	5.30	5.30	5.30
F	Balance useful life of the asset (Year)	25	25	24
G	Aggregate Depreciable Value	15247.24	16859.45	18190.29
H	**Combined Depreciation during the year**	**597.04**	**991.64**	**1070.25**
I	Aggregate Cumulative Depreciation	597.04	1588.68	2658.93
J	Remaining Aggregate Depreciable Value	14650.20	15270.77	15531.36

<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

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."

46. The Weighted Average Rate of IoL (WAROI) 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 asset and is as follows:

(₹ in lakh)

	Particulars	**2021-22 (pro-rata 243 days)**	**2022-23**	**2023-24**
A	Gross Normative Loan	11176.98	12531.45	13683.50
B	Cumulative Repayments upto Previous Year	0.00	597.04	1588.68

	Particulars	2021-22 (pro-rata 243 days)	2022-23	2023-24
C	Net Loan-Opening (A-B)	11176.98	11934.41	12094.82
D	Additions due to ACE	1354.47	1152.05	917.38
E	Repayment during the year	597.04	991.64	1070.25
F	Net Loan-Closing (C+D-E)	11934.41	12094.82	11941.95
G	Average Loan (C+F)/2	11555.69	12014.61	12018.38
H	Weighted Average Rate of Interest on Loan (in %)	6.5117	6.5105	6.5096
I	**Interest on Loan**	**500.96**	**782.21**	**782.35**

Return on Equity (RoE)

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

> *"**30. Return on Equity**: (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with Regulation 18 of these regulations.*
>
> *(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating station, transmission system including communication system and run-of-river hydro generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run-of-river generating station with pondage:*
>
> *Provided that return on equity in respect of additional capitalization after cutoff date beyond the original scope, excluding additional capitalization on 7 account of emission control system, shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission system or in the absence of actual loan portfolio of the generating station or the transmission system, the weighted average rate of interest of the generating company or the transmission licensee, as the case may be, as a whole shall be considered, subject to ceiling of 14%.*
>
> *Provided further that:*
>
> *i. In case of a new project, the rate of return on equity shall be reduced by 1.00% for such period as may be decided by the Commission, if the generating station or transmission system is found to be declared under commercial operation without commissioning of any of the Restricted Governor Mode Operation (RGMO) or Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system based on the report submitted by the respective RLDC;*
>
> *ii. in case of existing generating station, as and when any of the requirements under (i) above of this Regulation are found lacking based on the report submitted by the concerned RLDC, rate of return on equity shall be reduced by 1.00% for the period for which the deficiency continues;*
>
> *iii. in case of a thermal generating station, with effect from 1.4.2020:*

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 ₹ 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."

48. 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 asset is as follows:

(₹ in lakh)

	Particulars	**2021-22 (pro-rata 243 days)**	**2022-23**	**2023-24**
A	Opening Equity (A)	4790.14	5370.62	5864.36
B	Additions (B)	580.49	493.74	393.16
C	Closing Equity (C) = (A+B)	5370.62	5864.36	6257.52
D	Average Equity (D) = (A+C)/2	5080.38	5617.49	6060.94
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	17.472	17.472	17.472
G	Rate of Return on Equity (in %)	18.782	18.782	18.782
H	**Return on Equity**	**635.26**	**1055.08**	**1138.37**

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

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

Particulars	2021-22 (pro-rata 243 days)	2022-23	2023-24
Bays: **765 kV** i. 715 and 718 bay ii. 2 Numbers GIS bays			
765 kV Sub-station (numbers)	2	2	2
Norms (₹ lakh/bay)	48.23	49.93	51.68
765 kV GIS Sub-station (numbers	2	2	2
Norms (₹ lakh/bay)	33.761	34.951	36.176
Total O&M Expenses	**109.17**	**169.76**	**175.71**

50. The Regulation 35(3)(a) of the 2019 Tariff Regulations provides for O&M Expenses for the 2019-24 tariff period and it is as follows:

"35. Operation and Maintenance Expenses:

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

Particulars	*2019-20*	*2020-21*	*2021-22 (pro-rata 47 days)*	*2022-23*	*2023-24*
Norms for sub-station Bays (₹ Lakh per bay)					
765 kV	*45.01*	*46.60*	*48.23*	*49.93*	*51.68*
400 kV	*32.15*	*33.28*	*34.45*	*35.66*	*36.91*
220 kV	*22.51*	*23.30*	*24.12*	*24.96*	*25.84*
132 kV and below	*16.08*	*16.64*	*17.23*	*17.83*	*18.46*
Norms for Transformers (₹ Lakh per MVA)					
765 kV	*0.491*	*0.508*	*0.526*	*0.545*	*0.564*
400 kV	*0.358*	*0.371*	*0.384*	*0.398*	*0.411*
220 kV	*0.245*	*0.254*	*0.263*	*0.272*	*0.282*
132 kV and below	*0.245*	*0.254*	*0.263*	*0.272*	*0.282*
Norms for AC and HVDC lines (₹ Lakh per km)					
Single Circuit (Bundled Conductor with six or more sub-conductors)	*0.881*	*0.912*	*0.944*	*0.977*	*1.011*
Single Circuit (Bundled conductor with four sub-conductors)	*0.755*	*0.781*	*0.809*	*0.837*	*0.867*
Single Circuit (Twin & Triple Conductor)	*0.503*	*0.521*	*0.539*	*0.558*	*0.578*
Single Circuit (Single Conductor)	*0.252*	*0.260*	*0.270*	*0.279*	*0.289*

Particulars	*2019-20*	*2020-21*	*2021-22 (pro-rata 47 days)*	*2022-23*	*2023-24*
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 (₹ 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 (₹ Lakh) (1500 MW)	*2,252*	*2,331*	*2,413*	*2,498*	*2,586*
±500 kV Talcher- Kolar HVDC bipole scheme (₹ Lakh) (2000 MW)	*2,468*	*2,555*	*2,645*	*2,738*	*2,834*
±500 kV Bhiwadi-Balia HVDC bipole scheme (₹ Lakh) (2500 MW)	*1,696*	*1,756*	*1,817*	*1,881*	*1,947*
±800 kV, Bishwanath-Agra HVDC bipole scheme (₹ 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 (2500 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."

51. We have considered the submissions of the Petitioner. The O&M Expenses have been worked out for various elements of the transmission asset as per the norms specified in the 2019 Tariff Regulations and are as follows:

Particulars	**2021-22 (pro-rata 243 days)**	**2022-23**	**2023-24**
Bays: **765 kV** i. 715 and 718 bay ii. 2 Numbers GIS bays			
765 kV Sub-station (numbers)	2	2	2
Norms (₹ lakh/bay)	48.23	49.93	51.68
765 kV GIS Sub-station (numbers)	2	2	2
Norms (₹ lakh/bay)	33.761	34.951	36.176
Total O&M expenses	**109.17**	**169.76**	**175.71**

Interest on Working Capital (IWC)

52. 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;"*

53. 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%.

54. 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:

(₹ in lakh)

	Particulars	2021-22 (pro-rata 243 days)	2022-23	2023-24
A	WC for O&M Expenses (O&M Expenses for one month)	13.67	14.15	14.64
B	WC for Maintenance Spares (15% of O&M Expenses)	24.60	25.46	26.36
C	WC for Receivables (Equivalent to 45 days of annual transmission charges)	346.17	375.07	394.97
D	**Total Working Capital**	**384.43**	**414.68**	**435.97**
E	Rate of Interest (in %)	10.50	10.50	10.50
F	**Interest on Working Capital**	**26.87**	**43.54**	**45.78**

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

55. The transmission charges allowed for the transmission asset for the 2019-24 tariff period is as follows:

(₹ in lakh)

	Particulars	2021-22 (pro-rata 243 days)	2022-23	2023-24
A	Depreciation	597.04	991.64	1070.25
B	Interest on Loan	500.96	782.21	782.35
C	Return on Equity	635.26	1055.08	1138.37
D	O & M Expenses	109.17	169.76	175.71
E	Interest on Working Capital	26.87	43.54	45.78
F	**Total**	**1869.31**	**3042.23**	**3212.46**

<u>Filing Fee and the Publication Expenses</u>

56. The Petitioner has sought reimbursement of fee paid by it for filing the Petition and publication expenses in terms of Regulation 70 of the 2019 Tariff Regulations

57. 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 and RLDC Fees and Charges

58. The Petitioner has sought reimbursement of licence fee in accordance with Regulation 70(4) of the 2019 Tariff Regulations for 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 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

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

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

61. In response, the Petitioner vide affidavit dated 9.11.2022 has submitted that Under CGST Act, 2017 implemented w.e.f. 1.7.2017, the Government of India has exempted the charges of transmission of electricity vide Notification No. 12/2017 - Central Tax (Rate) dated 28.6.2017 at serial number 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.

62. 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

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

64. The Petitioner has submitted that as per Regulation 35(3)(c) of the 2019 Tariff Regulations, security expenses and capital spares for transmission system will be allowed separately after prudence check and a separate petition for the same will be filed by the Petitioner. Therefore, in absence of the above, the Commission may not allow any ad-hoc expenditure on account of security expenses by escalating the actual of 2018-19 by 3.5% p.a., which will be against the stipulation of the Regulation 35(3)(c) of the 2019 Tariff Regulations and outside the ambit of the instant petition as well.

65. 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. Therefore, the

Petitioner's prayer in the instant petition for allowing it to file a separate petition for claiming the overall security expenses and consequential IWC has become infructuous.

Capital Spares

66. 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

67. The Petitioner has prayed that the transmission charges for 2019-24 period may be recovered on monthly basis in accordance with Regulation 57 of the 2019 Tariff Regulations and will be shared by the beneficiaries and long term transmission customers in Central Electricity Regulatory Commission (Sharing of Inter State Transmission Charges and Losses) Regulations, 2010 as amended from to time.

68. We have considered the submission of the Petitioner. The COD of the transmission asset is approved as 1.8.2021. With effect from 1.11.2020, sharing of transmission charges is governed by the 2020 Sharing Regulations. Accordingly, the billing, collection and disbursement of the transmission charges of the transmission asset shall be recovered in terms of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.

69. To summarise:

a. AFC allowed for the 2019-24 tariff period is as follows:

(₹ in lakh)

2021-22 (pro-rata 243 days)	**2022-23**	**2023-24**
1869.31	3042.23	3212.46

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

71. This order disposes of Petition No. 271/TT/2022 in terms of the above findings and discussions.

sd/-	**sd/-**	**sd/-**
(P.K. Singh)	**(Arun Goyal)**	**(I.S. Jha)**
Member	**Member**	**Member**

ANNEXURE

2019-24	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Projected ACE (₹ in lakh)				Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation as per Regulations (in %)	Annual Depreciation as per Regulations (₹ in lakh)		
Capital Expenditure		2021-22	2022-23	2023-24	Total			2021-22	2022-23	2023-24
Building Civil Works & Colony	196.42	69.20	0.75	-	69.95	266.37	3.34%	7.72	8.88	8.90
Sub Station	15610.42	1836.96	1629.75	1297.95	4764.65	20375.08	5.28%	872.73	964.25	1041.54
PLCC	105.29	16.63	9.91	8.15	34.69	139.98	6.33%	7.19	8.03	8.60
IT Equipment (Incl. Software)	54.99	12.16	5.39	4.44	21.98	76.97	15.00%	9.16	10.48	11.21
Total	**15967.12**	**1934.95**	**1645.79**	**1310.54**	**4891.28**	**20858.40**		**896.79**	**991.64**	**1070.25**
						Average Gross Block (₹ in lakh)		**16934.60**	**18724.96**	**20203.13**
						Weighted Average Rate of Depreciation (in %)		**5.30%**	**5.30%**	**5.30%**