CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No. 115/TT/2023

Coram:

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

Date of Order : 16.02.2024

In the matter of:

Approval under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for determination of Transmission Tariff from COD to 31.3.2024 for Asset-1: 1x1500 MVA, 765/400 kV ICT (3rd) along with associated bays at Vadodara substation under "Transmission Network Expansion in Gujarat to increase its ATC from ISTS (Part A)".

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 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,

Near Mandvi Hotel, Panaji-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. **...Respondent(s)**

For Petitioner : Shri Zafrul Hasan, PGCIL
Shri Mohd. Mohsin, PGCIL
Shri Pankaj Sharma, PGCIL

For Respondents : None

ORDER

The instant petition has been filed by Power Grid Corporation of India Limited for determination of transmission tariff in respect of 1x1500 MVA, 765/400 kV ICT (3rd) along with associated bays at Vadodara Sub-station (hereinafter referred to as the "transmission asset") under "Transmission Network Expansion in Gujarat to increase its ATC from ISTS (Part A)" (hereinafter referred to as 'transmission project') in the Western Region under 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:

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 –8.0 above.*
> *3) Admit the capital cost as claimed in the Petition and approve the Additional Capitalization incurred / projected to be incurred.*
> *4) Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum*

Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulation 2019 as per para 8 above for respective block.

5) *Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 70 (1) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019, and other expenditure (if any) in relation to the filing of petition.*
6) *Allow the petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the respondents in terms of Regulation 70 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.*
7) *Allow the petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2019-24 period, if any, from the beneficiaries.*
8) *Allow the Petitioner to bill and recover GST on Transmission Charges separately from the respondents, if GST on transmission is levied at any rate in future. Further, any taxes including GST and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.*
9) *Allow interim tariff in accordance with Regulation 10(3) of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for purpose of inclusion in the PoC charges.*

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

Background

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

a. The Investment Approval (IA) for the transmission project was accorded by the Board of Directors of POWERGRID vide Memorandum Ref.: C/CP/PA2021-09-0A-IA025 dated 8.12.2021, at an estimated cost of ₹5844 lakhs including IDC of ₹68 lakhs based on September, 2021 price level. The transmission project was scheduled to be put into commercial operation within five months from the date of Investment Approval.

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

Sub-station:

i. 765/400/220 kV Vadodara Sub-station Extension

Augmentation of transformation capacity by 1x1500MVA, 765/400 kV ICT (3^{rd}) along with associated 765kV ICT bay

765 kV

Transformer bays	: 1 number GIS Bay#
1500 MVA, 765/400 kV ICT	: 1 number

GIS bay already existing only small portion of GIS along with AIS equipment are required to facilitate the connection of Transformer.

400 kV

Two number of 400 kV GIS bays were already constructed by POWERGRID for DGEN-Vadodara line. DGEN Gas Generator (1200 MW) has currently relinquished entire LTA. Out of these 2 numbers 400 kV line bays, 1 number Line bay to be utilized for 765/400 kV ICT (3rd) at Vadodara. Further for connecting this 400 kV line bay (for using with transformer) switching isolator on 400 kV side along with Transformer is included in this scheme.

c. The scheduled commercial operation date (SCOD), date of commercial operation (COD) and time over-run in case of the transmission asset are as follows:

SCOD	COD	Time over-run
30.4.2022	21.5.2022	20 days

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

5. The Petitioner has served the petition on the Respondents, and notice regarding the 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. M.P. Power Management Company Limited (MPPMCL), Respondent No. 1, vide affidavit dated 25.10.2023 has filed its reply and has raised the issues of sharing of transmission charges. The Petitioner has filed a rejoinder vide affidavit dated 2.11.2023 in response to the reply filed by MPPMCL. The issues raised by MPPMCL and the clarifications given by the Petitioner are considered in the relevant portions of this order.

6. The hearing in this matter was held on 27.9.2023, and the order was reserved.

7. This order is issued considering the submissions made by the Petitioner in the petition, the Petitioner's affidavit dated 19.9.2023, the reply filed by MPPMCL vide affidavit dated 25.10.2023, and the Petitioner's rejoinder vide affidavit dated 2.11.2023.

8. Having heard the representatives of the Petitioner 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 2019-24 tariff period:

(₹ in lakhs)

Particulars	2022-23 (pro-rata for 315 days)	2023-24
Depreciation	124.45	225.87
Interest on Loan	98.00	169.02
Return on Equity	132.23	239.69
O&M Expenses	31.41	40.36
Interest on Working Capital	705.51	846.00
Total	**1091.60**	**1520.95**

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

(₹ in lakhs)

Particulars	2022-23 (pro-rata for 315 days)	2023-24
O&M Expenses	68.13	70.50
Maintenance Spares	122.63	126.90
Receivables	155.94	187.00
Total Working Capital	**346.70**	**384.40**
Rate of Interest (in %)	10.50	10.50
Interest on Working Capital	**31.41**	**40.36**

Data of Commercial Operation ("COD")

11. The Petitioner has claimed the COD of the transmission asset as 21.5.2022. The Petitioner has submitted a CEA Energisation Certificate dated 13.5.2022, a WRLDC Certificate of Completion of Trial Operation dated 17.8.2022, a self-declared COD letter dated 21.5.2022, and a self-declared Notification of Trial Operation letter dated 21.5.2022 in support of the COD of the transmission asset.

12. Taking into consideration the CEA Energization Certificate, WRLDC Certificate of Completion of Trial Operation, self-declared COD letter and self-declared Notification of Trial Operation certificate, the COD of the transmission asset is approved as 21.5.2022.

Capital Cost

13. 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 up to 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 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 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."

14. The Petitioner vide Auditor's Certificate dated 11.10.2022 has claimed capital cost incurred as on COD and Additional Capital Expenditure (ACE) projected to be incurred in respect of the transmission asset, and the same are as follows:

(₹ in lakhs)

Apportioned approved cost (As per FR)	Expenditure up to COD	Projected ACE			Estimated completion cost
		2022-23	2023-24	2024-25	
5844.00	1584.90	2275.15	788.22	143.49	4791.76

15. The Petitioner has submitted that the FR apportioned approved cost is ₹5844 lakhs, and the estimated completion cost is ₹4791.76 lakhs. Thus, there is no cost over-run with regard to the transmission asset.

16. The Petitioner has submitted the reasons for item-wise cost variation between the approved cost (FR) and estimated completion cost in Form-5. The Petitioner has submitted the following reasons of cost variation:

a. Sub-station equipment, including initial spares (decrease of ₹279 lakhs):

   The procurement, open competitive bidding route is followed by providing equal opportunity to all eligible firms, the lowest possible market prices for required products/ services are obtained, and contracts are awarded on the basis of the lowest evaluated eligible bidder. The best competitive bid prices against tenders may happen to be lower or higher than the cost estimate depending upon prevailing market conditions.

   As regards the variation in the cost of individual items in sub-station packages, the packages under the subject 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 only. Hence, item-wise unit prices in contracts and their variation over unit rate considered in FR estimates are beyond the control of the Petitioner.

b. Decrease in IDC (decrease of ₹61 lakhs):

   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. In FR, IDC was calculated assuming loans from domestic sources, and the interest rate on loans has been considered at 10.5% of domestic loans subject to actuals. The actual IDC accrued up to COD has been considered in the Auditor Certificate.

c. Decrease in IEDC (decrease of ₹529 lakhs):

In Investment approval, 10.75% and 3% of equipment cost and Civil Works have been considered for IEDC and Contingency, respectively, whereas the actual expenditure under the subject head, IEDC, has been considered in the Auditor Certificate.

17. We have considered the submissions of the Petitioner. The estimated completion cost as on 31.3.2024 is ₹4791.76 lakhs, which is within the FR apportioned approved capital cost of ₹5844 lakhs. Thus, there is no cost overrun with regard to the transmission asset.

Time over-run

18. As per the IA dated 8.12.2021, the scheduled COD of the transmission asset was 30.4.2022. However, the transmission asset was put into commercial operation on 21.5.2022 with a time over-run of 20 days.

19. The Petitioner has submitted that the time over-run of 20 days in the case of the transmission asset is due to a compressed timeline due to the urgent requirement of the transmission asset, the COVID-19 pandemic and the delay in grant of permission by the Ministry of Road Transport and Highways (MRTH). The Petitioner has submitted that the time over-run was beyond the control of the Petitioner. Therefore, the same may be condoned under Regulation 22(2) of the 2019 Tariff Regulations The detailed reasons submitted by the Petitioner for the time over-run are as follows:

(a) Compressed timeline due to urgent requirement:

The decision to start this transmission project was based on the deliberations in the 547th Operation Coordination sub-committee (OCC) meeting held on 21.9.2021 and 22.9.2021, and the 1st Joint Study meeting on Transmission Planning for Western Region held on 5.11.2021. During these discussions, the overloading of the 765/400 kV ICTs at the Vadodara Sub-station and its consequences were examined. It was collectively agreed that the augmentation of the Vadodara Sub-station with an additional 765/400 kV ICT was imperative to alleviate the overloading issues and ensure compliance with the N-1 philosophy, all with a primary focus on enhancing system reliability. Given the urgency and the importance of addressing this issue promptly, a highly optimistic commissioning schedule was set, aiming to complete the project in less than five months.

(b) Delay due to Worldwide COVID-19 Pandemic:

The Covid 19 pandemic led to unforeseen / unplanned interruption and delays. The effects of the pandemic were non-linear, as associated developments were evolving rapidly. As such, a multitude of challenges were faced while navigating through largely uncharted territory with projects experiencing highly unique and mounting risks from the effects of COVID-19. The Petitioner has submitted that Covid-19 Pandemic started in early 2020 and continued in 2021/ 2022 which disrupted the supply chain and manpower, for which several restrictions were imposed by respective state/ local authorities. Further, in December, 2021/Janauary, 2022, Covid-19 3rd wave situation arose and measures were taken by state/UT to curb the pandemic which disrupted the supply chain and manpower.

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, and worker absenteeism due to illness/quarantine/ migration labour shortages, which resulted in a 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.

(c) Delay in obtaining transportation permission from MRTH:

The BHEL make ICT, which was one of the single-phase units rated at 500 MVA, was scheduled to be dispatched from the BHEL factory located in Bhopal. However, obtaining the requisite transportation permission from the MRTH typically entails a minimum processing time of approximately 15 days. In recognition of the pressing need to expedite the supply and transportation of the ICT units, exhaustive and concerted efforts were undertaken by the Petitioner. Considering the urgent need, the MITH, Government of India issued a Gazette Notification bearing REGD. No. D. L.-33004/99 on 11.4.2022. Subsequently, the BHEL make ICT was received at the site on 28.4.2022.

20. We have considered the submissions of the Petitioner and have gone through the documents placed on record to justify the time over-run. The Petitioner has attributed the time over-run of 20 days to the compressed timeline of the project, Covid-19 Pandemic and the delay in grant of permission by MRTH for transportation of 500 MVA ICT from BHEL, Bhopal factory.

21. One of the reasons attributed to time over-run by the Petitioner is the compressed timeline for execution of the transmission line. The timeline of five months for the transmission project must have been approved by the Petitioner's Board, taking into consideration the urgent need for ICT and other factors. Further, having undertaken the implementation as per the approved timeline, the Petitioner now cannot claim that the timeline for the implementation is short. Therefore, the Petitioner's plea for the compressed timeline is rejected.

22. The Petitioner has claimed that the transmission project was affected by COVID-19 and has also relied on the MoPs letters. We have gone through the MoP letter dated 27.7.2020 granting extension of COD of transmission projects that were under construction on 25.3.2020. A further extension of 3 months in COD was allowed by MoP, vide letter dated 12.6.2021, in case of the transmission projects which were under construction on 1.4.2021. The Investment Approval date of the project is 8.12.2021 and the SCOD of the transmission project is 30.4.2022 which is much after the cut-off date mentioned in the MoP letter dated 27.7.2020 and 12.6.2021. Therefore, the MoPs circular granting extension of COD due to Covid-19 is not applicable in the present case.

23. As regards the contention of the Petitioner regarding the delay in grant of permission by MRTH for transportation of the 500 MVA ICT from Bhopal, it is observed that the Petitioner approached MRTH on 16.11.2021 for the grant of permission for transportation of 500 MVA ICT. The permission was granted by MRTH vide letter dated 11.4.2022. Thereafter, the 500 MVA ICT was transported from Bhopal and it reached the site i.e. Vadodara on 28.4.2022 and was charged on 31.4.2022 and it was put into commercial operation on 21.5.2022. MRTH took more than 4 months for grant of permission for transportation of the 500 MVA ICT from Bhopal to Vadodara. We are of

the view that the time taken by MRTH for grant of permission is beyond the control of the Petitioner and it led to the time over-run of 20 days. As it is beyond the control of the Petitioner, we condone the time over-run of 20 days in the case of the transmission asset.

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

SCOD	Actual COD	Time Over-run	Time over-run condoned	Time over-run not condoned
30.4.2022	21.5.2022	20 days	20 days	NIL

<u>Interest During Construction (IDC) and Incidental Expenditure During Construction (IEDC)</u>

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

(₹ in lakhs)

IDC as per Auditor Certificate	IDC discharged up to COD	IDC discharged during 2022-23	IDC discharged during 2023-24
6.43	0.00	6.43	0.00

26. We have considered the submissions of the Petitioner. As discussed above, the time over-run of 20 days has been condoned. Accordingly, the IDC on a cash basis up to the COD has been worked out based on the loan details given in the Statement showing the 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 lakhs)

IDC as per Auditor Certificate	IDC Disallowed Due to computational error	IDC disallowed due to time over-run not condoned	IDC Allowed	IDC Discharged up to COD	IDC discharged during 2022-23	IDC discharged during 2023-24
6.43	0.00	0.00	6.43	0.00	6.43	0.00

27. Further, 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 disallowance of IEDC. The IEDC claimed as per the Auditor's Certificate, IEDC considered and discharged up to COD as follows:

(₹ in lakhs)

IEDC claimed as per Auditor Certificate (A)	IEDC disallowed due to time over-run not condoned (B)	IEDC Allowed (C)=(A-B)
12.18	0.00	12.18

<u>Initial Spares</u>

28. Regulation 23(d) of the 2019 Tariff Regulations provides that the 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) 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 as claimed by the Petitioner, are as follows:

(₹ in lakhs)

Particulars	Plant and Machinery cost	Initial Spares claimed	Allowable Initial Spares	Norm as per the 2019 Tariff Regulations (in %)
Sub-station	4753.15	6.78	332.25	7.00

30. The Initial Spares claimed by the Petitioner are as per the norm under Regulation 23(d) of the 2019 Tariff Regulations, and accordingly, the Petitioner's claim is allowed. The Initial Spares allowed are as follows:

(₹ in lakhs)

Plant and Machinery cost	Norm as per the 2019 Tariff Regulations (in %)	Initial Spares claimed	Allowable Initial Spares
4753.15	6.00	6.78	6.78

31. The capital cost allowed as on COD is as follows:

(₹ in lakhs)

Capital cost claimed	IDC &IEDC disallowed due to computational difference	IDC & IEDC undischarged as on COD	Excess Initial Spares disallowed	Capital cost considered as on COD
1584.90	0.00	6.43	0.00	1578.47

Additional Capital Expenditure (ACE)

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

"24. Additional Capitalisation within the original scope and up to the cut-off date

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

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

33. The Petitioner has claimed that the ACE incurred/ projected to be incurred is mainly on account of balance/ retention payments, and the same is claimed under Regulation 24(1)(a) and Regulation 24(1)(b) of the 2019 Tariff Regulations. The Petitioner has claimed capital cost as per the cash IDC discharge as on 31.3.2024 as follows:

(₹ in lakhs)

Apportioned approved cost (FR)	**Cost as on COD**	**Projected ACE 2019-24**		**Capital Cost as on 31.3.2024**
		2022-23	**2023-24**	
5844.00	1578.47	2281.58	788.22	4648.27

34. The Petitioner has submitted the liability flow statement wherein the Petitioner has submitted the following:

(₹ in lakhs)

Head/Part wise	**Particulars**	**Amount**		
		COD to 31.3.2023	**Projected 2023-24**	**Projected 2024-25**
Due to Unexecuted work				
Kshema Power Due to discharge liability	Civil work	19.70		
	Sub-station	2158.04	535.32	
	PLCC/OPGW	-		
	I.T. Equipment including software	16.81		
Kshema Power	Civil Work			
	Sub-station	80.60	252.91	143.49
	PLCC/OPGW			
	I.T. Equipment including software			
Total		2275.15	788.23	143.49

35. We have considered the submissions of the Petitioner. The Projected ACE claimed by the petitioner for 2022-23 and 2023-24 is towards unexecuted work, and

discharge liability is allowed under Regulation 24(1)(a) and Regulation 24(1)(b) of the 2019 Tariff Regulations.

36. The COD of the transmission asset is 21.5.2022, and the cut-off date of the transmission project is 21.5.2025. The projected ACE in 2024-25 is not allowed, and the same shall be dealt with in the 2024-29 tariff period as per the applicable tariff regulations.

37. Accordingly, the actual/ projected ACE allowed is subject to truing up in respect of the transmission asset, and the same is as follows:

(₹ in lakhs)

Apportioned approved cost (FR)	Cost as on COD	Projected ACE 2019-24		Capital Cost as on 31.3.2024
		*2022-23	2023-24	
5844.00	1578.47	2281.58	788.22	4648.27

**Including IDC of ₹6.43 lakhs*

Debt-Equity ratio

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

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

Provided that:

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

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

(2) The generating company or the transmission licensee, as the case may be, shall submit the resolution of the Board of the company or approval of the competent authority in other cases regarding infusion of funds from internal resources in support of the

utilization made or proposed to be made to meet the capital expenditure of the generating station or the transmission system including communication system, as the case may be.

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

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

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

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

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

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

39. The debt-equity 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 lakhs)**	**(in %)**	**ACE during 2019-24 (₹ in lakhs)**	**(in %)**	**Capital cost as on 31.3.2024 (₹ in lakhs)**	**(in %)**
Debt	1104.93	70.00	2148.86	70.00	3253.79	70.00
Equity	473.54	30.00	920.94	30.00	1394.48	30.00
Total	**1578.47**	**100.00**	**3069.80**	**100.00**	**4648.27**	**100.00**

Depreciation

40. 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 up to 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."

41. We have considered the submissions of the Petitioner. 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 Annexure-I 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 in respect of the transmission asset for the 2019-24 tariff period is as follows:

(₹ in lakhs)

	Particulars	2022-23 (pro-rata for 315 days)	2023-24
	Depreciation		
A	Opening Gross Block	1578.47	3860.05
B	ACE	2281.58	788.22
C	Closing Gross Block (A+B)	3860.05	4648.27
D	Average Gross Block (A+C)/2	2719.26	4254.16
E	Weighted average rate of Depreciation (WAROD) (in %)	5.30	5.31
F	Balance useful life of the asset (Year)	25	25
G	Aggregate Depreciable Value	2448.17	3830.42
H	**Combined Depreciation during the year**	**124.44**	**225.87**
I	Aggregate Cumulative Depreciation	124.44	350.31
J	Remaining Aggregate Depreciable Value	2323.73	3480.12

Interest on Loan (IoL)

42. 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."

43. The Petitioner has claimed the weighted average rate of IoL based on its actual loan portfolio and rate of interest. Accordingly, IoL has been calculated based on the actual interest rate submitted by the Petitioner, in accordance with Regulation 32 of the 2019 Tariff Regulations. The IoL allowed for the transmission asset is as follows:

(₹ in lakhs)

	Particulars	**2022-23 (pro-rata for 315 days)**	**2023-24**
A	Gross Normative Loan	1104.93	2702.03
B	Cumulative Repayments upto Previous Year	0.00	124.44
C	Net Loan-Opening (A-B)	1104.93	2577.59
D	Additions due to ACE	1597.11	551.75
E	Repayment during the year	124.44	225.87
F	Net Loan-Closing (C+D-E)	2577.59	2903.48
G	Average Loan (C+F)/2	1841.26	2740.53
H	Weighted Average Rate of Interest on Loan (in %)	6.1671	6.1675
I	**Interest on Loan**	**98.00**	**169.02**

Return on Equity (RoE)

44. Regulation 30 and Regulation 31 of the 2019 Tariff Regulations provides 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."

45. The Petitioner has submitted that the 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 the 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 lakhs)

	Particulars	2022-23 (pro-rata for 315 days)	2023-24
A	Opening Equity (A)	473.54	1158.01
B	Additions (B)	684.47	236.47
C	Closing Equity (C) = (A+B)	1158.01	1394.48
D	Average Equity (D) = (A+C)/2	815.78	1276.25
E	Return on Equity (Base Rate) (in %)	15.500	15.500
F	MAT Rate for respective year (in %)	17.472	17.472
G	Rate of Return on Equity (in %)	18.782	18.782
H	**Return on Equity**	**132.23**	**239.70**

Operation & Maintenance Expenses (O&M Expenses)

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

(₹ in lakhs)

Particulars	2022-23 (pro-rata for 315 days)	2023-24
Transformers: i. Vadodara ICT-III at Vadodara		
765 kV ICT	1500	1500
Norms (₹ lakh/bay)	0.545	0.564
Total O&M Expenses	**705.51**	**846.00**

47. The Regulation 35(3)(a) of the 2019 Tariff Regulations provides 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*	*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)					

Particulars	*2019-20*	*2020-21*	*2021-22*	*2022-23*	*2023-24*
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*
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."

48. We have considered the submissions of the Petitioner. The O&M Expenses are allowed as per the norms specified in the 2019 Tariff Regulations and are as follows:

(₹ in lakhs)

Particulars	**2022-23 (pro-rata for 315 days)**	**2023-24**
Transformer: Vadodara ICT-III at Vadodara		
765 kV ICT	1500	1500
Norms (₹ lakh/bay)	0.545	0.564
Total O&M Expenses	**705.51**	**846.00**

Interest on Working Capital (IWC)

49. 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;"*

50. 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%.

51. 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% 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 thereon allowed are as follows:

(₹ in lakhs)

	Particulars	2022-23 (pro-rata for 315 days)	2023-24
A	Working Capital for O&M Expenses (O&M Expenses for 1 month)	68.13	70.50
B	Working Capital for Maintenance Spares (15% of O&M Expenses)	122.63	126.90
C	Working Capital for Receivables (Equivalent to 45 days of annual transmission charges)	155.94	187.72
D	**Total Working Capital**	**346.69**	**385.12**
E	Rate of Interest (in %)	10.50	12.00
F	**Interest on Working Capital**	**31.42**	**46.21**

Annual Fixed Charges for the 2019-24 Tariff Period

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

(₹ in lakhs)

	Particulars	2022-23 (pro-rata for 315 days)	2023-24
A	Depreciation	124.44	225.87
B	Interest on Loan	98.00	169.02
C	Return on Equity	132.23	239.70
D	O & M Expenses	705.51	846.00
E	Interest on Working Capital	31.42	46.21
F	**Total**	**1091.60**	**1526.80**

Filing Fee and the Publication Expenses

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

54. 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 pro-rata basis in accordance with Regulation 70(1) of the 2019 Tariff Regulations.

Licence Fee & RLDC Fees and Charges

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

56. The Petitioner has submitted that if GST is levied at any rate and at any point of time in future on charges of transmission of electricity, the same will be borne and additionally paid by the 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. The transmission charges claimed are exclusive of GST.

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

Security Expenses

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

59. We have considered the submissions of the Petitioner. The Petitioner has claimed consolidated security expenses on a projected basis for the 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19 in Petition No. 260/MP/2020. The Commission vide order dated 3.8.2021 in Petition No. 260/MP/2020 approved security expenses from 1.4.2019 to 31.3.2024. 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

60. The Petitioner has sought reimbursement of capital spares at the end of the 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

61. The Petitioner has prayed that the transmission charges for the 2019-24 period may be recovered on a monthly basis in accordance with Regulation 57 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 and shall 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.

62. MPPMCL has submitted that the Petitioner should have stated who are the beneficiaries of the transmission asset and who would bear the transmission charges of the same. MPPMCL has submitted that the main beneficiary of the transmission asset is Gujarat and as per Regulation 7(1) of the Central Electricity Regulatory Commission

(Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020 (2020 Sharing Regulations), Gujarat is liable to bear the transmission charges of the transmission asset. In this regard, MPPMCL has also referred to Regulation 7 of the 2020 Sharing Regulations. Furthermore, MPPMCL has requested the Commission to consider the following aspects:

a. 1 X 1500 MVA 765 kV/400 kV ICT has been installed at Vadodara Sub-station as the then existing 2 X1500 MVA ICTs were in N-1 non-compliant condition (Specific to Gujarat).

b. 1 X 1500 MVA, 765 kV/400 kV ICT has been installed at Vadodara Sub-station to increase ATC from ISTS in Gujarat (Specific to Gujarat).

c. Out of the 3 X 500 MVA (single phase units), one 500 MVA unit was already available as a spare unit at Vadodara Sub-station. Therefore, the cost of the same must not have been included in the total cost or proper treatment for the same must have been done.

63. In response, the Petitioner has submitted in 547th Operation Co-ordination sub-committee (OCC) meeting held on 21.9.2021 and 22.9.2021 and 1st Joint Study meeting on Transmission Planning for Western Region held on 5.11.2021, the matter of overloading of 765/400 kV ICTs at Vadodara Sub-station along with its consequences was deliberated in detail, wherein it was decided that Augmentation of Vadodara Sub-station by 1 No. 765/400 kV ICT is essential in order to reduce the overloading of existing ICTs and meeting N-1 philosophy in the minimum time schedule from system reliability point of view. The Petitioner has submitted that the constituents of a region wherein the scheme is planned, conceived, agreed, and approved in RPC / SCM forums are impleaded as Respondents. Since, in the instant case, the transmission asset was

planned in the WRPC, the constituents of the Western Region are arrayed as Respondents in the petition.

64. As regards the contention of MPPMCL in respect of recovery of transmission charges, the Petitioner has submitted that the same shall be dealt with as per the 2020 Sharing Regulations as provided in Regulation 57 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.

65. We have considered the submissions of the MPPMCL and the Petitioner. With effect from 1.11.2020 (after the repeal of the 2010 Sharing Regulations), the sharing of transmission charges is governed by the 2020 Sharing Regulations. The transmission charges approved in this order shall be recovered in accordance with the 2020 Sharing Regulations as provided in Regulation 57(2) of the 2019 Tariff Regulations. Regulation 7 of the 2020 Sharing Regulations provides as follows:

> ***"7. Components and sharing of Transformer Component (TC)***
>
> *(1) Transformer Component for a State shall comprise of Yearly Transmission Charges for inter-connecting transformers (ICTs) planned for drawal of power by the concerned State. A list of such transformers for each State shall be provided by the Central Transmission Utility to the Implementing Agency. Provided that where the Yearly Transmission Charges of ICTs for a State are not available, the Yearly Transmission Charges for such transformers shall be worked out and provided by the Central Transmission Utility, apportioning Yearly Transmission Charges approved by the Commission for the integrated project, based on indicative capital cost. For transformers used for drawl requirement of more than one State, Yearly Transmission Charges shall be apportioned to such States in the ratio of number of feeders from such transformers for each State.*
>
> *(2) Transformer Component for a State shall be borne and shared by the drawee DICs located in the concerned State in proportion to their Long Term Access plus Medium Term Open Access."*

66. As per Regulation 7(1) of the 2020 Sharing Regulations, *"Transformer Component for State shall comprise YTC for Inter-connecting transformer (ICTs) planned for drawl of power by the concerned state".* Accordingly, the transmission

charges for the transmission asset shall be borne by GETCO/ Gujarat state discoms as a part of the transformer component for Gujarat.

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

(₹ in lakhs)

2022-23 (pro-rata for 315 days)	2023-24
1091.60	1526.80

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

69. This order disposes of Petition No. 115/TT/2023 in terms of the above findings and discussions.

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

ANNEXURE

2019-24	Admitted Capital Cost as on 1.4.2019 (₹ in lakhs)	Projected ACE (₹ in lakhs)			Admitted Capital Cost as on 31.3.2024 (₹ in lakhs)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakhs)		
Capital Expenditure		**2022-23**	**2023-24**	**Total**				**2022-23**	**2023-24**
Building Civil Works & Colony	0.30	19.70	-	19.70	20.00	3.34%		0.34	0.67
Sub Station	1578.17	2245.07	788.22	3033.29	4611.46	5.28%		142.60	222.68
IT Equipment (Incl. Software)	-	16.81	-	16.81	16.81	15.00%		1.26	2.52
Total	**1578.47**	**2281.58**	**788.22**	**3069.80**	**4648.27**			**144.20**	**225.87**
					Average Gross Block (₹ in lakhs)			**2719.26**	**4254.16**
					Weighted Average Rate of Depreciation			**5.30%**	**5.31%**