

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 684/TT/2020

Coram:

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

Date of Order: 03.01.2022

In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and 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 400 kV D/C Mundra UMPP – Bhuj (Triple Snowbird) Ckt-1 Transmission Line along with extension of 400 kV Mundra UMPP Switchyard and 400 kV Bhuj Pooling Station under “Transmission System Strengthening Associated with Mundra UMPP (Part-B)” in Western Region.

And in the matter of:

Power Grid Corporation of India Limited,
“Saudamini”, Plot No. 2, Sector 29,
Gurgaon – 122001 (Haryana).

.... Petitioner

Vs.

1. Madhya Pradesh Power Management Company Limited,
Shakti Bhawan, Rampur,
Jabalpur-482008.
2. Madhya Pradesh 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 Co. Limited,
Hongkong Bank Building, 3rd Floor,
M.G. Road, Fort, Mumbai-400 001.



5. Maharashtra State Electricity Transmission Company Limited,
Prakashganga, 6th Floor, Plot No. C-19, E-Block,
Bandra Kurla Complex, Bandra (East)
Mumbai-400 051.
6. Gujarat Urja Vikas Nigam Limited,
Sardar Patel Vidyut Bhawan,
Race Course Road,
Vadodara-390007.
7. Electricity Department,
Govt. 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, 66kv Road, Near Secretariat Amla,
Silvassa-396230.
10. Chhattisgarh State Power Transmission Company Limited,
Office of The Executive Director (C&P),
State Load Despatch Building, Dangania,
Raipur-492013.
11. Chhattisgarh State Power Distribution Company Limited,
P.O.Sunder Nagar, Dangania,
Raipur, Chhattisgarh-492013.
12. Tata Power,
Bombay House,
24, Homi Mody Street,
Mumbai-400001.

...Respondent(s)

For Petitioner : Shri S.S. Raju, PGCIL
Shri D.K Biswal, PGCIL
Shri Ved Prakash Rastogi, PGCIL
Shri A.K. Verma, PGCIL

For Respondents : Shri Anindya Khare, MPPMCL



ORDER

The Petitioner, Power Grid Corporation of India Limited, a deemed transmission licensee, has filed the instant petition for determination of transmission tariff for the period from COD to 31.3.2024 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) in respect of 400 kV D/C Mundra UMPP-Bhuj (Triple Snowbird) Ckt-1 Transmission Line along with extension of 400 kV Mundra UMPP Switchyard and 400 kV Bhuj Pooling Station (hereinafter referred to as “the transmission asset”) under “Transmission System Strengthening Associated with Mundra UMPP (Part-B)” in Western Region (hereinafter referred to as “the transmission project”).

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

“1) Approve the Transmission Tariff for the tariff block 2019-24 block for the asset covered under this petition, as per para –8.0 above.

2) Admit the capital cost as claimed in the Petition and approve the Additional Capitalisation incurred / projected to be incurred.

3) 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.

4) 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.

5) 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.

6) 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.



7) 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.

8) 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."

3. **Backdrop of the case**

(a) The investment approval (IA) of the transmission project was accorded by Board of Directors of the Petitioner's Company vide Memorandum Ref.: C/CP/PA1617-07-0D-IA004 dated 22.7.2016, at an estimated cost of ₹30094 lakh including IDC of ₹1804 lakh, at April 2016 price level. Subsequently, RCE (revised cost estimates) for the transmission project was approved by Board of Directors of the Petitioner's Company vide Memorandum Ref.: PA1920-08-0S-RCE 004 dated 4.11.2019, at an estimated cost of ₹33166 lakh including IDC of ₹1350 lakh, at March 2019 price level.

(b) The scope of the transmission project was approved in the 36th Standing Committee Meeting of Power System Planning of Western Region constituents held on 29.8.2013, and the same was further ratified in the 24th WRPC Meeting held on 9.10.2013. The project was further discussed in the 38th Standing Committee Meeting of Power System Planning of Western Region constituents held on 17.7.2015.

(c) The scope of work covered under the transmission project is as follows:

- i. Mundra UMPP-Bhuj Pool 400 kV D/C line (Triple Snowbird): 95 km
- ii. Extension of 400 kV Bhuj Pooling Station-400 kV line bays: 2 nos.
- iii. Extension of 400 kV Mundra UMPP Switchyard-400 kV line bays: 2 nos.

(d) The Petitioner has submitted that entire scope of the transmission project has been completed and the details of the petitions in which the assets of the transmission project are covered is as follows:



Sl. No.	Asset Name	SCOD as per IA	Actual COD	Covered in Petition No.
1	400 kV D/C Mundra UMPP – Bhuj (Triple Snowbird) Ckt-2 Transmission Line along with extension of 400 kV Mundra UMPP Switchyard and 400 kV Bhuj Pooling Station	20.12.2018	20.3.2019	387/TT/2018
2	400 kV D/C Mundra UMPP – Bhuj (Triple Snowbird) Ckt-1 Transmission Line along with extension of 400 kV Mundra UMPP Switchyard and 400 kV Bhuj Pooling Station		2.4.2019	Covered under instant petition

(e) The Petitioner claimed the tariff for both the circuits of the transmission asset i.e. 400 kV D/C Mundra UMPP-Bhuj (Triple Snowbird) Ckt-2 Transmission Line along with extension of 400 kV Mundra UMPP Switchyard and 400 kV Bhuj Pooling Station in Petition No. 387/TT/2018. The Ckt-2 and Ckt-1 were put into commercial operation on 20.3.2019 and 2.4.2019 respectively. The tariff for only Ckt-2 was approved by the Commission vide order dated 13.1.2020 in Petition No. 387/TT/2018 and the Petitioner was directed to file a separate petition claiming tariff for Ckt-1 as per the 2019 Tariff Regulations, since it was put into commercial operation in the 2019-24 tariff period. Accordingly, the Petitioner has filed the instant petition claiming tariff for 400 kV D/C Mundra UMPP-Bhuj (Triple Snowbird) Ckt-1 Transmission Line along with extension of 400 kV Mundra UMPP Switchyard and 400 kV Bhuj Pooling Station.

(f) As per IA dated 22.7.2016, the transmission asset was scheduled to be put into commercial operation within 29 months from the date of approval of Board of Directors (20.7.2016) i.e., by 20.12.2018.

(g) The details of the transmission asset including SCOD, COD and time over-run are as follows:

SCOD	COD claimed	Time over-run
20.12.2018	2.4.2019	104 days

(h) The Annual Fixed Charges (AFC) claimed by the Petitioner in respect of the transmission asset for the 2019-24 tariff period are as follows:



(₹ in lakh)

Particulars	2019-20 (for 365 days)	2020-21	2021-22	2022-23	2023-24
Depreciation	280.32	288.04	289.44	289.44	289.44
Interest on Loan	281.74	266.19	244.63	221.35	197.25
Return on Equity	285.50	293.26	294.76	294.76	294.76
Interest on working capital	17.77	18.00	17.90	17.73	17.52
O&M Expenses	115.26	119.61	123.72	128.01	132.48
Total	980.59	985.10	970.45	951.29	931.45

(i) The details of the Interest on Working Capital (IWC) claimed by the Petitioner in respect of the transmission asset are as follows:

(₹ in lakh)

Particulars	2019-20 (for 365 days)	2020-21	2021-22	2022-23	2023-24
O&M Expenses	9.63	9.97	10.31	10.67	11.04
Maintenance Spares	17.34	17.94	18.56	19.20	19.87
Receivables	120.90	121.45	119.64	117.28	114.52
Total	147.87	149.36	148.51	147.15	145.43
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	17.77	18.00	17.90	17.73	17.52

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

5. The Petitioner has served the petition on the Respondents and notice regarding filing of this petition has also been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments or suggestions have been received from the general public in response to the aforesaid notices published in the newspapers by the Petitioner. Madhya Pradesh Power Management Company Limited (MPPMCL) i.e. Respondent No. 1 has filed its reply vide affidavit dated 16.1.2021 and has raised issues of time over run, cost variation, Additional Capitalization and GST. The Petitioner has filed rejoinder vide affidavit dated



22.10.2021. The issues raised by MPPMCL have been considered in the relevant portions of this order.

6. The hearing in this matter was held on 29.10.2021 through video conference and order was reserved.

7. This order is issued considering the submissions made by the Petitioner in the petition vide affidavit dated 27.11.2019 along with the affidavits dated 15.9.2021 and 24.11.2021, reply filed by MPPMCL vide affidavit dated 16.1.2021 and the rejoinder filed by PGCIL vide affidavit dated 22.10.2021.

8. Having heard the representatives of the parties and having perused the material on record, we proceed to dispose of the petition.

Date of Commercial Operation (“COD”)

9. The Petitioner has claimed COD in respect of the transmission asset under Regulation 9(1) of the 2019 Tariff Regulations as follows:

SCOD of the transmission asset	Completion of Trial run	COD claimed for the transmission asset
19.12.2018	1.4.2019	2.4.2019

10. In support of actual COD of the transmission asset, the Petitioner has submitted CEA Energisation Certificate dated 1.1.2019, RLDC charging certificate dated 12.4.2019 certifying that trial operation completed on 1.4.2019, and CMD certificate dated 16.4.2019.

11. Taking into consideration CEA energisation certificate, RLDC charging certificate and CMD certificate as required under the Grid Code, COD of the transmission asset is approved as 2.4.2019.



Capital Cost

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

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

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

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



Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.

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

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

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

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

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

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

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

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

- (c) In case of hydro generating stations, any expenditure incurred or committed to be incurred by a project developer for getting the project site allotted by the State Government by following a transparent process;*
- (d) Proportionate cost of land of the existing project which is being used for generating power from generating station based on renewable energy; and*



(e) Any grant received from the Central or State Government or any statutory body or authority for the execution of the project which does not carry any liability of repayment.”

13. The Petitioner vide Auditor’s Certificate dated 31.7.2019 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)

Apportioned approved cost as per		Capital Cost claimed as on COD	Projected ACE		Estimated completion cost
FR	RCE		2019-20	2020-21	
4562.87	5535.92	4989.82	188.29	53.09	5231.20

Cost Over-run

14. The estimated completion cost of the transmission asset is based on the Auditor’s certificate dated 31.7.2019 and works out to be ₹5231.20 lakh including IEDC and IDC. Therefore, there is no cost over-run as per approved revised cost estimate (RCE) of ₹5535.92 lakh.

15. The Petitioner has submitted Form-5 and following justification for cost variation from FR cost of ₹4562.87 lakh to completion cost of ₹5231.20 lakh as on 31.3.2024:

(i) Transmission lines (increase of ₹8.56 crore):

In the FR, line length was considered as 95 km. However, during execution, line length has increased to 98.345 km. Therefore, quantity of insulators has increased from 2144 (envisaged in FR) to 2363 (as per actual). Likewise, quantity of conductors has increased from 868 km (envisaged in FR) to 897 km (as per actual). Consequently, quantities of tower erection, stringing, and other associated civil works etc. has also increased due to increase in line length resulting in the increase of cost as per actual requirement. Further, the awarded/ executed rates of transmission line materials e.g., conductor, insulator etc. received in competitive bidding have also increased with respect to unit rates envisaged in FR such as, the rate of conductor/km from ₹245410 to



₹330092, insulators/unit from ₹5254 to ₹10402 etc. The above factors have contributed to the increase of cost under the subject head.

(ii) Sub-station (Increase of ₹3.49 crore):

(a) Civil works (Increase of ₹0.84 crore): The cost under this head has increased as per actual site conditions.

(b) Sub-station equipment including IT equipment and software (Increase of ₹2.65 crore): The reason of increase in the cost of sub-station equipment is increase in the quantities of switchgear equipment from 39 to 45 and control, relay and protection panel from 7 to 8 as per actual site conditions resulting in the increase in the cost of sub-station equipment.

(c) Variation in cost is also attributable to higher awarded cost received in competitive bidding w.r.t unit rates considered in FR.

(d) The best competitive bid prices against tenders may happen to be lower or higher. In the said competitive 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. Hence, item-wise unit prices in contracts and its variation over unit rate considered in FR estimates are beyond the control of the Petitioner.

(iii) Decrease in IDC and IEDC (decrease of ₹5.36 crore):

(a) Decrease in IDC is attributable to variation in rate of interest considered in FR v/s actuals, and deployment of funds based on requirement during project implementation.

(b) In FR, IDC was calculated considering rate of interest for domestic loans @10.5%. However, in actual, the weighted average rate of interest of loans is around 8.27%. The actual IDC accrued up to COD has been considered in the Auditors' Certificate. Further, in Investment Approval, 10.75% and 3% of equipment cost and Civil Works has been considered for IEDC and contingency respectively, whereas based on the actual expenditure under the subject head, IEDC has been considered in the Auditors' Certificate.



16. MPPMCL has submitted that if the claim of the Petitioner is accepted that IDC has reduced due to change in interest rates, then it is evident that the Petitioner did not practice due diligence or conduct market study before provisioning of such a high rate of interest. The Petitioner regularly arranges loans for its project and, hence, should have knowledge of the prevailing interest rates and such an ignorance on part of the Petitioner is totally unacceptable. MPPMCL further requested to undertake prudence check while determining the capital cost and disallow any excess cost incurred by it.

17. In response, the Petitioner has submitted that there is no cost over-run as per the RCE. Further, the details of the same have already been given in the petition and in Form-5 submitted along with the petition.

18. We have considered the submissions of the Petitioner and MPPMCL. The estimated completion cost is more than the FR cost by ₹668.33 lakh. The Petitioner has submitted reasons for increase/ decrease in cost of various items. However, the estimated completion cost of the transmission asset is ₹5231.20 lakh against the revised apportioned approved cost of ₹5535.92 lakh. Accordingly, the cost variation is allowed.

Time Over-run

19. As per the Investment Approval (IA) dated 20.7.2016, the transmission project was scheduled to be commissioned within 29 months from the date of investment approval. Accordingly, the scheduled COD was 20.12.2018 against which the transmission asset has been executed on 2.4.2019. Thus, there is a time over-run of 104 days in case of the transmission asset.



20. The Petitioner has submitted that delay is due to severe RoW issues in Mandvi, Nakhatrana and Bhuj taluka and delay in finalization of land rates by government revenue authorities, which were beyond the control of the Petitioner. The Petitioner has submitted that the project was also monitored under Pro-Active Governance and Timely Implementation (PRAGATI) by PMO, and the construction work of the transmission asset could be completed with the help of local administration and under police protection. The Petitioner has further submitted the chronology of events as follows:

(a) RoW problems: Severe RoW issues were faced in Mandavi, Nakhatrana, Bhuj taluka. RoW issues were gradually resolved after various meeting with local administration as the project was reviewed under PRAGATI by PMO. The Petitioner has submitted the detailed RoW chronology.

(b) Land rate finalization: There was delay in finalization of land rate of Kutch district (Taluka-Nakhatrana, Mandvi, Bhuj) and various letters/ communications were sent to local administration for the finalization of land rate. After various meetings with local administration and farmers, order for land rate was issued on 31.7.2018.

Sr. No.	Date	Details
1	3.4.2017 and 3.5.2017	Letter to collector Kutch for row & land rate fixing meeting Taluka Nakhtrana
2	7.7.2017	letter to collector Kutch for row & land rate fixing meeting Taluka Mandvi
3	30.5.2017, 13.6.2017, 5.7.2017 and 26.7.2017	Notice letter sent from collector office to farmers (part-i)
4	28.8.2017 and 3.10.2017	Land orders issued from collector for 1st and 2 nd meeting (1 st /2 nd lot)
5	4.1.2018	Letter given to collector for rate fixation of balance villages (Vyara, Pundi, Kojachora, Akadana)
6	25.1.2018	letter from DM to Mamlatdar for rate of balance villages
7	17.3.2018, 21.3.2018 and 27.4.2018	letter to Mamlatdar Mandvi for list of farmers of Pundi village

21. MPPMCL has submitted that while the Petitioner has contended that the time



over-run was on account of RoW issues and delay in land rate finalisation, the first letter (for land rate finalisation) to the District Administration was written by the Petitioner only on 3.4.2017, which is almost 4 months after the date of BoD approval. Therefore, the time over-run is on account of delay on the part of the Petitioner in approaching the District Administration. If the Petitioner had approached the District Administration in a timely manner, the land rate would have been finalised three months earlier. Non-finalisation of land rate on time has led to various RoW issues. MPPMCL has further submitted that the Petitioner has not submitted CEA, WRLDC, COD and CMD certificates. Hence, the time over-run may not be condoned.

22. As regards the delay in finalisation of land rate, the Petitioner has submitted that Ministry of Power, Government of India, vide order dated 15.10.2015, has framed new guideline for determining the compensation towards damages as stipulated in section 67 and 68 of Electricity Act, 2003 read with section 10 and 16 of Indian Telegraph Act, 1885. The instant transmission line had to pass through various villages in Nakhatrana, Mandvi, Bhuj and Mundra taluka of Kutchh District. Soon after BoD approval of the transmission project, the Petitioner approached the concerned farmers whose land were along the route of the subject transmission line, for starting the construction activities. But the farmers were not satisfied with the rate offered by the Petitioner and some farmers were demanding huge compensation which was not possible as per the guidelines of the Ministry of Power. After various meetings with the local administration and farmers, order for land rate was issued on 31.7.2018. The detailed chronology of events along with the documents in support of the same is furnished by the Petitioner.

23. The Petitioner further submitted that it faced RoW problems at various



locations-3/0, 4/0-7/1, 7/2-7/7, 12/2, 13/0, 13/1, 14/0-40/0, 46/0 and 66/4 and the last such RoW problem faced by the Petitioner was on 20.2.2019. Finally, the Petitioner was able to the charge the transmission asset on 2.4.2019. The time over-run of 619 days on account of RoW problems was beyond the control of the Petitioner. However, the Petitioner has compressed the execution time and was able to put the transmission asset into commercial operation with overall time over-run of 104 days.

24. We have considered the submissions of the Petitioner and MPPMCL and perused the documents available on records. The transmission asset has been put into commercial operation on 2.4.2019 with a time over-run of 104 days. As per the submissions of the Petitioner, the instant asset was delayed due to RoW problems at various locations in construction of transmission line and due to delay in finalization of land rates pertaining to construction of transmission line.

25. As per the submissions of the Petitioner, it is observed that the Petitioner has faced RoW problems at various locations and the last such RoW problem faced by the Petitioner was on 20.2.2019. Finally, the Petitioner was able to put the transmission asset under commercial operation on 2.4.2019. The Commission vide order dated 13.1.2020 in Petition No. 387/TT/2018 has already condoned the time delay of 90 days in case of Ckt-2 of the 400 kV Mundra (CGPL)-Bhuj (Triple Snowbird) Line along with associated line bays at Mundra (CGPL) Generating station and 765/400 kV Bhuj Sub-station. The Petitioner should have put both the circuits into commercial operation simultaneously, especially when the Investment Approval does not provide for putting them into commercial operation separately. However, Ckt-2 and Ckt-1 were put into commercial operation with a gap of 14 days. The Petitioner has not explained the reasons for the delay from COD of Ckt-2 to COD of Ckt-1. As



the Commission has already condoned the time over-run of 90 days in case of Ckt-2 of the transmission asset, we condone the time over-run of 90 days in case of the associated Ckt-1 and the additional time over-run of 14 days in case of Ckt-1, which has not been explained by the Petitioner, is not condoned.

26. Accordingly, the decision with regard to time over-run in respect of the transmission asset is as follows:

SCOD	COD	Time over-run	Time over-run condoned	Time over-run not condoned
20.12.2018	2.4.2019	104 days	90 days	14 days

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

27. The Petitioner has claimed IDC in respect of the transmission asset and has submitted the Auditor's Certificate dated 31.7.2019 in support of the same. The Petitioner has submitted the computation of IDC along with year-wise details of the IDC discharged.

28. The loan amount as on COD has been mentioned in Form-9C. While going through the document, it is observed that there is mismatch in loan amount between IDC statement and in Form-9C. Therefore, the allowable IDC has been worked out based on the available information and relying on loan amount as per Form 9C. The Petitioner is directed to submit the detailed IDC statement by rectifying the above-mentioned deviation at the time of true up.

29. The loan details submitted in Form-9C for 2019-24 tariff period and IDC computation statement have been considered for the purpose of IDC calculation on cash basis and on accrued basis. The un-discharged IDC as on COD has been



considered as ACE during the year in which it has been discharged. Further, adjustment on account of time over-run has been done to arrive at the admissible IDC. However, in the statement showing IDC discharged up to COD, the Petitioner has not indicated the floating rate of interest of the loans deployed. IDC on cash basis up to COD has been worked out on the basis of loan details given in the statement showing discharge of IDC and Form-9C for the transmission asset.

30. Accordingly, based on the information furnished by the Petitioner, IDC considered, is as follows:

(₹ in lakh)					
IDC Claimed	IDC allowed	IDC disallowed due to time over-run/ excess claim	IDC Discharged as on COD	IDC Un-discharged as on COD	IDC Discharge During
A	B	C = (A-B)	D	E = (B-D)	2019-20
83.47	81.40	2.07	75.78	5.63	5.63

31. The Petitioner has claimed IEDC of ₹74.23 lakh and has submitted Auditor's Certificate in support of the same. The Petitioner has also submitted that entire IEDC has been discharged as on COD in respect of the transmission asset. Accordingly, IEDC allowed are as follows:

(₹ in lakh)		
IEDC claimed as per Auditor's Certificate	IEDC disallowed due to time over-run	IEDC allowed as on COD
1	2	3 = (1-2)
74.23	1.05	73.18

Initial Spares

32. The Petitioner has claimed Initial Spares for the transmission asset in accordance with the Regulation 23(d) of the 2019 Tariff Regulations 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%”

33. The Petitioner has claimed the following Initial Spares:

Particulars	Plant & Machinery Cost up to cut-off date (₹ in lakh) (excluding IDC and IEDC)	Initial Spares Claimed (₹ in lakh)	Ceiling (in%)
Transmission Line	3613.52	36.00	1.00
Sub-station	1371.44	59.40	6.00
PLCC	88.52	5.38	3.50

34. MPPMCL has submitted that the Initial Spares claimed by the Petitioner comes out to be 6.24% of cost claimed for PLCC which is much higher than the cost allowed in the 2019 Tariff Regulations. Hence, the same be restricted to 3.5% as per the Regulations after prudence check.

35. In response, the Petitioner submitted that PLCC equipment is a communication system, and it has been considered as a part of the sub-station, as it is used both for protection and communication. Further, the Initial Spares are within the specified limits as per Regulation 23 of the 2019 Tariff Regulations.

36. We have considered the submissions of the Petitioner and MPPMCL. The Petitioner has claimed the Initial Spares on PLCC under Communication System separately. Form 5 under Part-III of the 2019 Tariff Regulations requires the transmission licensee to provide “Element wise Break-up of Project/Asset/Element Cost for Transmission System or Communication System”. Details are required to be furnished regarding (a) transmission line (preliminary works, transmission lines



material, taxes and duties); (b) sub-stations (preliminary works & land, civil works, sub-station equipment, spares, taxes and duties); and (c) communication system (preliminary works, communication system equipment, taxes and duties). PLCC forms a part (at Sl. No. 6.5) of sub-station equipment under the head 'sub-station equipment' and there is no mention of PLCC under communication system. The Petitioner has also submitted Form-13, wherein the Petitioner has neither mentioned nor claimed initial spares towards PLCC. The Initial Spares claimed towards PLCC are included in the sub-station. Therefore, we are not inclined to grant initial spares separately towards PLCC under "Communication System" head. However, incidentally in the instant case, Initial Spares claimed by the Petitioner and allowed works out to be the same, i.e. ₹100.78 lakh. The Initial Spares approved for the transmission asset are as follows:

Particulars	Plant & Machinery Cost up to cut-off date (₹ in lakh) (excluding IDC and IEDC)	Initial Spares claimed (₹ in lakh)	Allowable Initial Spares (₹ in lakh)	Ceiling limit (in %)	Initial Spares allowed (₹ in lakh)	Discharge of Initial spares as on COD (₹ in lakh)
Transmission Line	3613.52	36.00	36.14	1.00	36.00	36.00
Sub-station including PLCC	1459.96	64.78	89.05	6.00	64.78	64.78

Capital Cost allowed as on COD

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

(₹ in lakh)				
Capital Cost claimed in Auditor's Certificate as on COD (A)	IDC Disallowed due to time over-run (B)	Un-discharged IDC as on COD (C)	IEDC disallowed (D)	Expenditure up to COD (E) = (A-B-C-D)
4989.82	2.07	5.63	1.05	4981.07

Additional Capital Expenditure ("ACE")



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

“24. Additional Capitalization within the original scope and up to the cut-off date:

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

(a) Undischarged liabilities recognized to be payable at a future date;

(b) Works deferred for execution;

(c) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 23 of these regulations;

(d) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority or order or decree of any court of law;

(e) Change in law or compliance of any existing law; and

(f) Force Majeure events:

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

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

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

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

a) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority, or order or decree of any court of law;

b) Change in law or compliance of any existing law;

c) Deferred works relating to ash pond or ash handling system in the original scope of work;

d) Liability for works executed prior to the cut-off date;

e) Force Majeure events;

f) Liability for works admitted by the Commission after the cut-off date to the extent of



discharge of such liabilities by actual payments; and

g) Raising of ash dyke as a part of ash disposal system.

(2) In case of replacement of assets deployed under the original scope of the existing project after cut-off date, the additional capitalization may be admitted by the Commission, after making necessary adjustments in the gross fixed assets and the cumulative depreciation, subject to prudence check on the following grounds:

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

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

(c) The replacement of such asset or equipment is necessary on account of

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

39. The Petitioner has claimed projected ACE for 2019-24 tariff period on account of balance and retention payments due to un-discharged liability projected for works executed within the cut-off date and unexecuted works within cuff-off date. The Petitioner has claimed projected ACE of ₹188.29 lakh for the year 2019-20 and ₹53.09 lakh for the year 2020-21 as per Auditor's certificate.

40. MPPMCL has submitted that the Petitioner has failed to provide proper reasoning for ACE and, hence, the same should be allowed only as per actuals at the time of truing up.

41. In response, the Petitioner has submitted that the head-wise and contractor-wise details of ACE claimed under subject petition has already been submitted vide affidavit dated 15.9.2021 and the same is in line with the 2019 Tariff Regulations.

42. We have considered the submissions of Petitioner and MPPMCL. ACE claimed on account of balance and retention payments is allowed under Regulations 24(1)(a) of the 2019 Tariff Regulations. ACE allowed in respect of the transmission



asset is as follows:

RCE	Capital Cost as on COD	Admitted ACE		Capital Cost as on 31.3.2024
		2019-20	2020-21	
5535.92	4981.07	193.92*	53.09	5228.08

**Includes IDC discharged*

Debt-Equity Ratio

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

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

Provided that:

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

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

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

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

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



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

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

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

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

44. The details of debt-equity considered for the purpose of computation of tariff for 2019-24 period in respect of the transmission asset is as follows:

Particulars	Capital Cost as on COD (₹ in lakh)	(in %)	Total Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	3486.75	70.00	3659.66	70.00
Equity	1494.32	30.00	1568.42	30.00
Total	4981.07	100.00	5228.08	100.00

Depreciation

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

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

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

(2) The value base for the purpose of depreciation shall be the capital cost of the Asset-admitted by the Commission. In case of multiple units of a generating station or multiple elements of a transmission system, weighted average life for the generating station of the transmission system shall be applied. Depreciation shall be chargeable from the



first year of commercial operation. In case of commercial operation of the Asset-for part of the year, depreciation shall be charged on pro rata basis.”

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

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

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

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

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

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

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

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

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

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

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

(9) Where the emission control system is implemented within the original scope of the



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

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

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

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

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

46. 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 in Annexure-I considering the depreciation rates of IT and non-IT asset 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 has been worked out considering the admitted capital expenditure as on COD and ACE in 2019-24 period. Depreciation allowed in respect of the transmission asset is as follows:

Particulars	(₹ in lakh)				
	2019-20 (pro-rata)	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	4981.07	5174.99	5228.08	5228.08	5228.08
Addition during the year 2019-24 due to projected ACE	193.92	53.09	0.00	0.00	0.00
Closing Gross Block	5174.99	5228.08	5228.08	5228.08	5228.08
Average Gross Block	5078.03	5201.54	5228.08	5228.08	5228.08
Weighted average rate of Depreciation (WAROD) (in %)	5.53	5.53	5.53	5.53	5.53
Lapsed useful life at the	0.00	0.00	1.00	2.00	3.00



beginning of the year (Year)					
Balance useful life at the beginning of the year (Year)	32.00	32.00	31.00	30.00	29.00
Aggregated Depreciable Value	4582.54	4694.01	4717.90	4717.90	4717.90
Depreciation during the year	280.16	287.86	289.26	289.26	289.26
Remaining Aggregate Depreciable Value at the beginning of the year	4582.54	4413.85	4149.88	3860.61	3571.35
Cumulative Depreciation at the end of the year	280.16	287.86	289.26	289.26	289.26
Remaining Aggregate Depreciable Value at the end of the year	4302.38	4125.98	3860.61	3571.35	3282.08

Interest on Loan (“IoL”)

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

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

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

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

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

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

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

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

(5a) *The rate of interest on loan for installation of emission control system shall be the weighted average rate of interest of actual loan portfolio of the emission control system or in the absence of actual loan portfolio, the weighted average rate of interest of the*



generating company as a whole shall be considered.

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

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

48. The weighted average rate of interest of IoL has been considered on the basis of the rates prevailing as on COD for respective loans. The Petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, during 2019-24 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true-up. In view of above, IoL has been worked out in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL allowed in respect of the transmission asset is as follows:

Particulars	(₹ in lakh)				
	2019-20 (pro-rata)	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	3486.75	3622.49	3659.66	3659.66	3659.66
Cumulative Repayments up to Previous Year	0.00	280.16	568.02	857.29	1146.55
Net Loan-Opening	3486.75	3342.34	3091.64	2802.37	2513.11
Addition due to ACE	135.74	37.16	0.00	0.00	0.00
Repayment during the year	280.16	287.86	289.26	289.26	289.26
Net Loan-Closing	3342.34	3091.64	2802.37	2513.11	2223.84
Average Loan	3414.54	3216.99	2947.00	2657.74	2368.48
Weighted Average Rate of Interest on Loan (in %)	8.27	8.27	8.30	8.32	8.32
Interest on Loan	281.59	266.03	244.48	221.22	197.14

Return on Equity (“RoE”)

49. 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 cut-off date beyond the original scope excluding Additional Capitalization due to Change in Law, shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission system;

Provided further that:

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

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

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

a) rate of return on equity shall be reduced by 0.25% in case of failure to achieve the ramp rate of 1% per minute;

b) an additional rate of return on equity of 0.25% shall be allowed for every incremental ramp rate of 1% per minute achieved over and above the ramp rate of 1% per minute, subject to ceiling of additional rate of return on equity of 1.00%:

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

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

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

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

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

Where “t” is the effective tax rate in accordance with clause (1) of this Regulation and shall be calculated at the beginning of every financial year based on the estimated profit and tax to be paid estimated in line with the provisions of the



relevant Finance Act applicable for that financial year to the company on pro-rata basis by excluding the income of non-generation or non-transmission business, as the case may be, and the corresponding tax thereon. In case of generating company or transmission licensee paying Minimum Alternate Tax (MAT), "t" shall be considered as MAT rate including surcharge and cess.

Illustration-

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

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

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

(a) Estimated Gross Income from generation or transmission business for FY 2019-20 is Rs 1,000 crore;

(b) Estimated Advance Tax for the year on above is Rs 240 crore;

(c) Effective Tax Rate for the year 2019-20 = Rs 240 Crore / Rs 1000 Crore = 24%;

(d) Rate of return on equity = $15.50 / (1 - 0.24) = 20.395\%$.

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

50. The Petitioner has submitted that MAT rate is applicable to it. We have considered the submissions of the Petitioner. MAT rate applicable for the year 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. RoE allowed in respect of the transmission asset is as follows:

Particulars	(₹ in lakh)				
	2019-20 (pro-rata)	2020-21	2021-22	2022-23	2023-24
Opening Equity	1494.32	1552.50	1568.42	1568.42	1568.42
Addition due to ACE	58.18	15.93	0.00	0.00	0.00
Closing Equity	1552.50	1568.42	1568.42	1568.42	1568.42
Average Equity	1523.41	1560.46	1568.42	1568.42	1568.42
Return on Equity	15.500	15.500	15.500	15.500	15.500



Particulars	2019-20 (pro-rata)	2020-21	2021-22	2022-23	2023-24
(Base Rate) (in %)					
Tax Rate applicable (in %)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (Pre-tax)	18.782	18.782	18.782	18.782	18.782
Return on Equity (Pre-tax)	285.35	293.09	294.58	294.58	294.58

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

51. Regulation 35(3)(a) and Regulation 35(4) of the 2019 Tariff Regulations provide as follows:

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

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<i>Norms for sub-station Bays (₹ Lakh per bay)</i>					
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
<i>Norms for Transformers (₹ Lakh per MVA)</i>					
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
<i>Norms for AC and HVDC lines (₹ Lakh per km)</i>					
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
<i>Norms for HVDC stations</i>					



<i>HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)</i>	834	864	894	925	958
<i>Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)</i>	1,666	1,725	1,785	1,848	1,913
<i>500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)</i>	2,252	2,331	2,413	2,498	2,586
<i>±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)</i>	2,468	2,555	2,645	2,738	2,834
<i>±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)</i>	1,696	1,756	1,817	1,881	1,947
<i>±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)</i>	2,563	2,653	2,746	2,842	2,942

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

Provided further that:

- i. the operation and maintenance expenses for new HVDC bi-pole schemes commissioned after 1.4.2019 for a particular year shall be allowed pro-rata on the basis of normative rate of operation and maintenance expenses of similar HVDC bi-pole scheme for the corresponding year of the tariff period;*
- ii. the O&M expenses norms for HVDC bi-pole line shall be considered as Double Circuit quad AC line;*
- iii. the O&M expenses of ±500 kV Mundra-Mohindergarh HVDC bipole scheme (2000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±500 kV Talchar-Kolar HVDC bi-pole scheme (2000 MW);*
- iv. the O&M expenses of ±800 kV Champa-Kurukshetra HVDC bi-pole scheme (3000 MW) shall be on the basis of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme;*
- v. the O&M expenses of ±800 kV, Alipurduar-Agra HVDC bi-pole scheme (3000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme; and*
- vi. the O&M expenses of Static Synchronous Compensator and Static Var Compensator shall be worked at 1.5% of original project cost as on commercial operation which shall be escalated at the rate of 3.51% to work out the O&M expenses during the tariff period. The O&M expenses of Static Synchronous Compensator and Static Var Compensator, if required, may be reviewed after three years.*

(b) The total allowable operation and maintenance expenses for the transmission system shall be calculated by multiplying the number of sub-station bays, transformer



capacity of the transformer (in MVA) and km of line length with the applicable norms for the operation and maintenance expenses per bay, per MVA and per km respectively.

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

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

(4) Communication system: The operation and maintenance expenses for the communication system shall be worked out at 2.0% of the original project cost related to such communication system. The transmission licensee shall submit the actual operation and maintenance expenses for truing up.”

52. O&M Expenses claimed by the Petitioner in respect of the transmission asset are as follows:

(₹ in lakh)					
Particulars	2019-20 (pro-rata)	2020-21	2021-22	2022-23	2023-24
Sub-station Bays					
400 kV: Bhuj: Mundra Bay	1	1	1	1	1
400 kV: Mundra: Bhuj Bay	1	1	1	1	1
Norm (₹ lakh/bay)					
400 kV	32.15	33.28	34.45	35.66	36.91
Total Sub-station O&M Expenses	64.30	66.56	68.90	71.32	73.82
Transmission Line					
Mundra-Bhuj Transmission Line	98.350	98.350	98.350	98.350	98.350
Norm (₹ lakh/km)					
S/C (Twin/Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Total Transmission Line	49.47	51.24	53.01	54.88	56.85
Communication System					
PLCC (₹ in lakh)	90.66	90.66	90.66	90.66	90.66
Norms (in %)	2	2	2	2	2
Total Communication System	1.81	1.81	1.81	1.81	1.81
Total O&M Expenses (₹ in lakh)	115.27	119.61	123.72	128.01	132.48

53. The Petitioner has claimed O&M Expenses separately for PLCC under Regulation 35(4) of the 2019 Tariff Regulations @2% of its original project cost in the instant petition. The Petitioner has made similar claim in other petitions as well.



Though PLCC is a communication system, it has been considered as part of the sub-station in the 2014 Tariff Regulations and the 2019 Tariff Regulations and the norms for sub-station have been specified accordingly. Accordingly, the Commission vide order dated 24.1.2021 in Petition No. 126/TT/2020 has already concluded that no separate O&M Expenses can be allowed for PLCC under Regulation 35(4) of the 2019 Tariff Regulations even though PLCC is a communication system. Therefore, the Petitioner's claim for separate O&M Expenses for PLCC @ 2% is not allowed.

54. As stated earlier, the Petitioner has split the transmission asset into Ckt-1 and Ckt-2 and has claimed O&M Expenses considering them as single circuit (S/C) in the instant petition for 98.407 km S/C of Ckt-1 and also in Petition No. 142/TT/2021 (filed for truing up of the tariff allowed for Ckt-2 of the transmission line vide order dated 13.1.2020 in Petition No.387/TT/2018) for 98.407 km S/C. With COD of Ckt-1, both the circuits of the transmission line have been put into commercial operation. Therefore, O&M Expenses shall be allowed for Double Circuit (D/C) instead of S/C separately in this instant order. Accordingly, no O&M Expenses shall be allowed for Ckt-2 of the transmission line in Petition No. 142/TT/2021 for 2019-24 period that has been filed for truing-up of tariff of 2014-19 period and determination of tariff for 2019-24 period. After hearing the parties, order in Petition No. 142/TT/2021 is reserved.

55. O&M Expenses allowed in respect of the transmission asset are as follows:

Particulars	(₹ in lakh)				
	2019-20 (Pro-rata)	2020-21	2021-22	2022-23	2023-24
Sub-station Bays					
400 kV: Bhuj: Mundra Bay	1	1	1	1	1
400 kV: Mundra: Bhuj Bay	1	1	1	1	1
Norm (₹ lakh/bay)					
400 kV	32.15	33.28	34.45	35.66	36.91
Total Sub-station O&M Expenses	64.30	66.56	68.90	71.32	73.82



Transmission Line					
Mundra-Bhuj Transmission Line	98.350	98.350	98.350	98.350	98.350
Norm (₹ lakh/km)					
D/C (Twin/Triple Conductor)	0.88	0.91	0.94	0.98	1.01
Total Transmission Line	86.65	89.70	92.84	96.09	99.43
Total O&M Expenses (₹ in lakh)	150.53	156.26	161.74	167.41	173.25

Interest on Working Capital (“IWC”)

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

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

.....

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

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

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

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

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

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

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

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

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

57. The Petitioner has submitted that it has computed IWC for 2019-24 period



considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of IWC as 12.05%. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The Rate of Interest (ROI) considered is 12.05% (SBI 1 year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20, 11.25% (SBI 1 year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) for 2020-21 and 10.50% (SBI 1 year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points) for 2021-24. The components of the working capital and interest allowed in respect of the transmission asset thereon is as follows:

(₹ in lakh)

Particulars	2019-20 (Pro-rata)	2020-21	2021-22	2022-23	2023-24
Working Capital for O&M Expenses (O&M expenses for one month)	12.58	13.02	13.48	13.95	14.44
Working Capital for Maintenance Spares (15% of O&M expenses)	22.64	23.44	24.26	25.11	25.99
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost / annual transmission charges)	125.37	125.94	124.16	121.98	119.39
Total Working Capital	160.60	162.40	161.90	161.04	159.81
Rate of Interest for working capital (in %)	12.05	11.25	10.50	10.50	10.50
Interest of working capital	19.30	18.27	17.00	16.91	16.78

Annual Fixed Charges for 2019-24 Tariff Period

58. The transmission charges allowed in respect of the transmission asset for 2019-24 tariff period is as follows:

(₹ in lakh)

Particulars	2019-20 (Pro-rata)	2020-21	2021-22	2022-23	2023-24
Depreciation	280.16	287.86	289.26	289.26	289.26



Interest on Loan	281.59	266.03	244.48	221.22	197.14
Return on Equity	285.35	293.09	294.58	294.58	294.58
Operation and Maintenance Expense	150.53	156.26	161.74	167.41	173.25
Interest on Working Capital	19.30	18.27	17.00	16.91	16.78
Total	1016.93	1021.50	1007.07	989.38	971.02

Filing Fee and Publication Expenses

59. The Petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses in terms of Regulation 70(1) of the 2019 Tariff Regulations. 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

60. 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 2019-24 tariff period.

Goods and Services Tax

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

62. MPPMCL has submitted that GST is not applicable on transmission services, hence the same may be disallowed. In response, the Petitioner reiterated its submissions.



63. 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 Petitioner's prayer is pre-mature.

Sharing of Transmission Charges

64. With effect from 1.11.2020, the 2010 Sharing Regulations has been repealed and sharing of transmission charges is governed by the provisions of the 2020 Sharing Regulations. Accordingly, the liabilities of DICs for arrears of transmission charges determined through this order shall be computed DIC-wise in accordance with the provisions of the 2019 Tariff Regulations and shall be recovered from the concerned DICs through Bill 2 under Regulation 15(2)(b) of the 2020 Sharing Regulations. Billing, collection, and disbursement of transmission charges for subsequent period shall be recovered in terms of provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.

65. To summarise:

(a) AFC allowed in respect of the transmission asset for the 2019-24 tariff period in the instant order are as follows:

(₹ in lakh)				
2019-20 (Pro-rata for 365 days)	2020-21	2021-22	2022-23	2023-24
1016.93	1021.50	1007.07	989.38	971.02

66. Annexure-I given hereinafter shall form part of the order.

67. This order disposes of Petition No. 684/TT/2020 in terms of the above discussions and findings.

**sd/-
(P.K. Singh)
Member**

**sd/-
(Arun Goyal)
Member**

**sd/-
(I.S. Jha)
Member**

**sd/-
(P.K. Pujari)
Chairperson**



Annexure-I

2019-24 Capital Expenditure as on 1.4.2019	Admitted Capital Cost as on COD (₹ in lakh)	ACE		Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (%)	Annual Depreciation as per Regulations				
		2019-20	2020-21			2019-20 (₹ in lakh)	2020-21 (₹ in lakh)	2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)
Transmission Line	3674.03	45.65	0.00	3,719.68	5.28	195.19	196.40	196.40	196.40	196.40
Sub Station	1118.25	120.21	53.09	1291.55	5.28	62.22	66.79	68.19	68.19	68.19
PLCC	68.75	21.87	0.00	90.62	6.33	5.04	5.74	5.74	5.74	5.74
IT Equipment and software	120.05	6.19	0.00	126.23	15.00	18.47	18.94	18.94	18.94	18.94
TOTAL	4981.07	193.92	53.09	5228.08		280.93	287.86	289.26	289.26	289.26
Average Gross Block (₹ in lakh)						5078.03	5201.54	5228.08	5228.08	5228.08
Weighted Average Rate of Depreciation (%)						5.53	5.53	5.53	5.53	5.53

