

# CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No. 665/TT/2020

**Coram:**

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

**Date of Order: 11.01.2022**

**In the matter of:**

Approval of transmission tariff for assets under POWERGRID works associated with "TBCB lines under Common Transmission System for Phase-II Generation Projects in Odisha" in the Eastern and Western Region.

**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. Maharashtra State Electricity Distribution Company Limited,  
Prakashgad, 4<sup>th</sup> Floor,  
Andheri (East), Mumbai-400052.
3. Gujarat Urja Vikas Nigam Limited,  
Sardar Patel Vidyut Bhawan,  
Race Course Road,  
Vadodara-390007.
4. Electricity Department,  
Government of Goa,  
Vidyut Bhawan, Near Mandvi Hotel,  
Panaji, Goa-403001.
5. Electricity Department,  
Administration of Daman & Diu,  
Daman-396210.



6. Electricity Department,  
Administration of Dadra Nagar Haveli,  
U.T., Silvassa 396230.
7. Chhattisgarh State Electricity Board,  
P.O. Sunder Nagar, Dangania, Raipur,  
Chhatisgaarh-492013,
8. Madhya Pradesh Audyogik Kendra,  
Vikas Nigam (Indore) Limited,  
3/54, Press Complex, Agra-Bombay Road,  
Indore-452008.
9. Bihar State Power (Holding) Company Limited,  
(Formerly Bihar State Electricity Board-BSEB)  
Vidyut Bhawan, Bailey Road,  
Patna-800001.
10. West Bengal State Electricity Distribution Company Limited,  
Bidyut Bhawan, Bidhan Nagar,  
Block DJ, Sector-II, Salt Lake City,  
Calcutta-700091.
11. Grid Corporation of Orissa Limited,  
Shahid Nagar,  
Bhubaneswar-751007.
12. Damodar Valley Corporation,  
DVC Tower, Maniktala,  
Civic Centre, VIP Road, Calcutta-700054.
13. Power Department,  
Government of Sikkim,  
Gangtok-737101.
14. Jharkhand State Electricity Board,  
In Front of Main Secretariat,  
Doranda, Ranchi-834002.
15. Odisha Generation Phase-II Transmission Limited (OGPTL),  
(Under Indi Grid Trust Sponsored by Sterlite Power)  
F-1, Mira Corporate Suits,  
1 & 2, Mathura Road, Ishwar Nagar,  
New Delhi-110065.

**...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 Respondent:** 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 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) for the period from COD to 31.3.2024 in respect of the following assets under POWERGRID works associated with “TBCB lines under common transmission system for Phase-II generation projects in Odisha” in the Eastern & Western Region (hereinafter referred to as “the transmission system”):

**Asset-I:** 02 numbers 765 kV Line Bays at 765 kV Jharsuguda (Sundargarh) sub-station alongwith 02x240 MVAR Switchable Line Reactor (SLR) with 700 ohm NGR (Neutral Grounding Reactor) for termination of Jharsuguda (Sundargarh)-Raipur Pool 765 kV D/C line; and

**Asset-II:** 02 numbers. 765 kV Line Bays at 765 kV Raipur Pool alongwith 02x240 MVAR Switchable Line Reactor (SLR) with 700 ohm NGR (Neutral Grounding Reactor) for termination of Jharsuguda (Sundargarh)-Raipur Pool 765 kV D/C line (hereinafter to be referred as “transmission assets”).

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 assets covered under this petition, as per para –8.3 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 8.3 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. **Background**

(a) The Administrative Approval and expenditure sanction to the transmission system was accorded by the Board of Directors of the Petitioner's Company *vide* C/CP/PA1617-03-0V-IA020 dated 10.3.2017 for ₹16231.00 lakh including an IDC of ₹ 956.00 lakh based on October 2016 price level.

(b) The scope of the transmission system was deliberated and approved in the meeting with constituents of Eastern Region regarding connectivity and LTA on 5.1.2013 and the 24<sup>th</sup> TCC of ERPC meeting held on 26.4.2013 and 27.4.2013. The transmission system was further agreed in the Standing Committee Meeting (SCM) of ER held on 2.5.2014. The transmission system was also discussed and agreed in the 24<sup>th</sup> TCC of WRPC held on 9.10.2013 and the SCM of WR held on 5.9.2014.

(c) As per the Investment Approval (IA), the transmission assets were scheduled to put into commercial operation within 24 months from the date of Investment Approval matching with the completion schedule of associated TBCB line.



(d) The scope of work covered under the transmission system broadly includes:

**Jharsuguda (Sundargarh) Sub-station extension**

- (i) Line bays: 02 numbers of termination of Jharsuguda (Sundargarh) – Raipur Pool 765 kV D/C line **(line under TBCB)**
- (ii) Line reactor: 02X240 MVAR switchable line reactor alongwith 700 ohm NGR (Neutral Grounding Reactor) in Jharsuguda (Sundargarh) – Raipur Pool 765 kV D/C line **(line under TBCB)**

**Raipur Pooling Station extension**

- (i) Line bays: 02 numbers for termination of Jharsuguda (Sundargarh) – Raipur Pool 765 kV D/C line **(line under TBCB)**
- (ii) Line reactor: 02X240 MVAR switchable line reactor alongwith 700 ohm NGR (Neutral Grounding Reactor) in Jharsuguda (Sundargarh) – Raipur Pool 765 kV D/C line **(line under TBCB)**

(e) All the assets covered under the transmission system have been executed and covered in the instant petition.

(f) The date of commercial operation (COD) along with the detail of time over-run for the transmission assets is as follows:

<b>Asset</b>	<b>SCOD</b>	<b>COD</b>	<b>Time over-run</b>
Asset-I	9.3.2019	7.4.2019	29 days
Asset-II		7.4.2019	29 days

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

5. The Petitioner has served the petition on the Respondents and notice regarding filing of this petition has been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments/ objections have been received from the general public in response to the aforesaid notice published in the newspaper by the Petitioner. Madya Pradesh Power Management Company Limited (MPPMCL), Respondent No.1, has filed its reply *vide* affidavit dated 18.2.2021. The Respondent has raised the issues of actual commissioning of the transmission assets, element-



wise cost variation, increase in Additional Capital Expenditure (ACE) and GST. The Petitioner has filed its rejoinder to the reply of MPPMCL vide affidavit dated 27.10.2021. The issues raised by MPPMCL and clarifications thereto given by the Petitioner have been dealt in the relevant portions of this order.

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

7. This order is issued considering the submissions made by the Petitioner dated 27.8.2020 and 26.10.2021, MPPMCL's reply filed vide affidavit dated 18.2.2021 and the Petitioner's rejoinder filed vide affidavit dated 27.10.2021.

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 vide affidavit dated 27.8.2020 for the transmission assets for the 2019-24 tariff period:

**Asset-I**

(₹ in lakh)

Particulars	2019-20 (Pro-rata 360 days)	2020-21	2021-22	2022-23	2023-24
Depreciation	313.11	343.63	349.21	351.85	351.85
Interest on Loan	322.59	326.21	303.56	277.50	248.38
Return on Equity	325.45	357.17	362.97	365.79	365.79
O&M Expenses	22.28	23.73	23.84	23.83	23.65
Interest on Working Capital	179.61	188.97	195.49	202.29	209.29
<b>Total</b>	<b>1163.04</b>	<b>1239.71</b>	<b>1235.07</b>	<b>1221.26</b>	<b>1198.96</b>



**Asset-II**

(₹ in lakh)

Particulars	2019-20 (Pro-rata 360 days)	2020-21	2021-22	2022-23	2023-24
Depreciation	341.59	379.83	389.96	389.96	389.96
Interest on Loan	362.64	375.37	354.32	321.84	289.36
Return on Equity	363.85	405.40	416.05	416.05	416.05
O&M Expenses	23.94	25.80	26.08	25.88	25.64
Interest on Working Capital	180.77	190.15	196.67	203.47	210.47
<b>Total</b>	<b>1272.79</b>	<b>1376.55</b>	<b>1383.08</b>	<b>1357.20</b>	<b>1331.48</b>

10. The Petitioner has claimed the following Interest on Working Capital (IWC) vide affidavit dated 27.8.2020 for the transmission assets for the 2019-24 tariff period:

**Asset-I**

(₹ in lakh)

Particulars	2019-20 (Pro-rata 360 days)	2020-21	2021-22	2022-23	2023-24
O&M Expenses	15.22	15.75	16.29	16.86	17.44
Maintenance Spares	27.39	28.35	29.32	30.34	31.39
Receivables	145.38	152.84	152.27	150.57	147.41
Total Working Capital	187.99	196.94	197.88	197.77	196.24
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
<b>Interest on Working Capital</b>	<b>22.28</b>	<b>23.73</b>	<b>23.84</b>	<b>23.83</b>	<b>23.65</b>

**Asset-II**

(₹ in lakh)

Particulars	2019-20 (Pro-rata 360 days)	2020-21	2021-22	2022-23	2023-24
O&M Expenses	15.32	15.85	16.39	16.96	17.54
Maintenance Spares	27.57	28.52	29.50	30.52	31.57
Receivables	159.10	169.71	170.52	167.33	163.71
Total Working Capital	201.99	214.08	216.41	214.81	212.82
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
<b>Interest on Working Capital</b>	<b>23.94</b>	<b>25.80</b>	<b>26.08</b>	<b>25.88</b>	<b>25.64</b>

**Date of Commercial Operation (COD)**

11. The Petitioner has claimed the actual COD of both Asset-I and Asset-II as 7.4.2019. Regulation 5 of the 2019 Tariff Regulations provides as follows:

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





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

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

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

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

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

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

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

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





*commercial operation under any of the sub-clauses of Clause (3) of this Regulation;*

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

12. In support of the actual COD of Asset-I and Asset-II, the Petitioner *vide* affidavit dated 27.8.2020 has submitted CEA Energisation Certificate dated 28.2.2019 and 26.3.2019 respectively under Regulation 43 of Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2010; RLDC Charging Certificate dated 27.5.2019; self-declaration COD letters dated 17.7.2019; and CMD certificate as required under the Grid Code.

13. Taking into consideration the CEA energisation Certificate, RLDC charging Certificate and CMD Certificate, COD of the transmission assets is approved as 7.4.2019.

### **Capital Cost**

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

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

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

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



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

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

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

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

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



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

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

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

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

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

15. The Petitioner, vide Auditor’s Certificates dated 21.10.2019 and 2.7.2020, has submitted the actual expenditure incurred up to COD and Additional Capital Expenditure (ACE) incurred/ projected from COD to 31.3.2021 in respect of the transmission assets as per the following details:

(₹ in lakh)

Assets	FR AppORTIONED Approved Cost	Cost as on COD	Actual/ Projected ACE				Estimated Completion Cost
			2019-20	2020-21	2020-21	2021-22	
<b>Asset-I</b>	7700.31	5463.34	822.62	105.86	100.00	0.00	6491.82
<b>Asset-II</b>	8531.48	6129.91	875.90	378.11	0.00	0.00	7383.92
<b>TOTAL</b>	<b>16231.79</b>	<b>11593.25</b>	<b>1698.52</b>	<b>483.97</b>	<b>100.00</b>	<b>0.00</b>	<b>13875.74</b>

16. The Petitioner has further submitted that the estimated completion cost of the transmission assets based on the Auditor certificate works out to ₹13875.74 lakh, which is within the FR approved cost of ₹16231.79 lakh. Hence, there is no cost over-run in case of the transmission assets.



### Cost Over-run

17. MPPMCL has submitted that the difference in estimated cost and actual cost on establishment expenditure is evident from below:

(₹ in lakh)

Assets	Estimated Cost	Actual Cost	Excess estimated cost
Asset-I	685.02	337.28	347.74
Asset-II	970.8	177.36	793.44
<b>Total</b>	<b>1655.82</b>	<b>514.64</b>	<b>1141.18</b>

18. MPPMCL has submitted that it can be seen that the actual establishment expenditure is around 31% of the estimated cost. Such large difference in estimated and actual expenditure is not acceptable and is an example of gross negligence and deliberate over-estimation on part of the Petitioner. The Petitioner is hiding its inefficiency and carelessness under the cover of estimation. MPPMCL requested to undertake prudence check on this issue while deciding the completion cost and to disallow the excess cost incurred by the Petitioner.

19. In response, the Petitioner has submitted that the reasons with regards to item-wise cost variation have been provided in the Form-5 of the transmission assets. The Petitioner has submitted that against the total apportioned approved cost of ₹7700.31 lakh for Asset-I, the estimated completion cost is ₹6491.82 lakh and against the total apportioned approved cost of ₹8531.48 lakh for Asset-II, the estimated completion cost is ₹7383.92 lakh. Combining these two transmission assets, against the FR approved total apportioned approved cost of ₹16231.79 lakh, the estimated completion cost is ₹13875.74 lakh.

20. We have considered the submissions of the Petitioner and MPPMCL. It is observed that the Petitioner has not submitted the reasons for over-estimation of IDC and contingency expenditure. The Petitioner is directed to submit the detailed



justification of over-estimation of IDC and contingency expenditure at the time of truing up. However, considering the capital cost claimed by the Petitioner and the FR approved apportioned cost, there is no cost over-run.

**Time over-run**

21. As per the Investment Approval *vide* C/CP/PA1617-03-0V-IA020 dated 10.3.2017, the commissioning schedule of the project is 24 months from the date of Investment Approval, matching with the completion schedule of associated TBCB line. However, the actual COD of the transmission assets is as follows:

<b>Assets</b>	<b>(Scheduled Commercial Date of Operation) SCOD</b>	<b>Actual COD</b>	<b>Time over-run</b>
Asset-I	9.3.2019	7.4.2019	29 days
Asset-II	9.3.2019	7.4.2019	29 days

22. There is time over-run of 29 days in declaring COD for the transmission assets. The reasons submitted by the Petitioner for time over-run in case of Asset-I and Asset-II are as follows:

- a) As per the Transmission Service Agreement, the completion schedule of the transmission line (under TBCB route) was August 2019. Subsequently, after a series of meetings chaired under CEA, preponement of the transmission line was decided. Hence, the system including transmission line (under TBCB route through M/s Sterlite) and transmission assets were put into commercial operation w.e.f. 7.4.2019.
- b) The Petitioner has completed its scope of works i.e. line bays and reactors at Raipur end prior to 9.3.2019 i.e. the completion scheduled as per Investment Approval (IA). The Petitioner applied for CEA certificate on 8.3.2019 and obtained CEA energisation certificate on 26.3.2019. The Petitioner was throughout ahead of the completion schedule in terms of completion of its scope and could have pressed harder in the last leg of the project to charge its line bays and reactors on no-load by 9.3.2019 i.e. the schedule date of COD as per IA. However, in view of the discharge of its functions as CTU and in accordance



with the mutually agreed date of commercial operation with M/s Sterlite, the transmission assets were put into commercial operation on 7.4.2019 matching with the Jharsuguda (Sundargarh)-Raipur Pooling Station 765 kV D/C line under TBCB route through M/s Sterlite with power flow from day one.

23. The Petitioner has prayed to condone the marginal time over-run of 29 days as the execution was completed shortly after the scheduled completion date so as to match the overall transmission system and to avoid unnecessary complexities of mismatch as addressed and directed by the Commission while approving transmission tariff for such projects.

24. MPPMCL, *vide* affidavit dated 18.2.2021, has submitted that the Petitioner has given consent for preponement of scheduled completion date and, therefore, reasons attributed for the delay are baseless and attributable to the Petitioner. Accordingly, the time over-run may not be condoned. MPPMCL has submitted that the Petitioner has not submitted CEA certificate and RLDC certificate in support of COD. MPPMCL has requested to ascertain COD after verifying all documents required under Regulation 5(2) of the 2019 Tariff Regulations and not to allow the time over-run. MPPMCL has submitted that the Petitioner *vide* affidavit dated 27.10.2021 has submitted that the time over-run is attributable to the mutually agreed date of commercial operation with Odisha Generation Phase II Transmission Limited (OGPTL). However, the Petitioner has not submitted any supporting documents for the delay along with the petition.

25. In response to contentions of MPPMCL, the Petitioner has reiterated its submissions made in the petition and submitted that the contention of MPPMCL regarding non-submission of CEA certificate and RLDC certificate is misplaced since CEA certificate and RLDC charging certificates for the transmission assets along with RLDC certificate of the TBCB line have already been submitted in the instant petition.



26. We have considered the submission of the Petitioner and MPPMCL. The Petitioner has attributed the entire time over-run in case of the transmission assets to the time taken for matching them with the transmission assets under the scope of OGPTL. The Petitioner has not submitted any other reason for the time over-run in case of the transmission assets. The Petitioner has submitted that, in its capacity as the Central Transmission Utility (CTU), it has matched COD of the transmission assets with the transmission line being constructed by M/s Sterlite under TBCB route. In our view, function of the Petitioner as transmission licensee undertaking construction of the transmission assets and its function as CTU cannot be mixed up. The time over-run of 29 days in case of Asset-I and Asset-II on account of matching with associated transmission line under the scope of OGPTL, was the decision of the Petitioner (based on some mutually agreed date of commissioning) and, hence, the same is not condoned.

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

27. The Petitioner has claimed IDC for the transmission assets and has submitted the statement showing IDC claim, discharge of IDC liability as on date of commercial operation and thereafter as given below:

(₹ in lakh)

Assets	IDC as per Auditor's Certificate	IDC Discharged upto COD	IDC discharged during 2019-20
Asset-I	126.86	121.77	5.09
Asset-II	149.91	144.06	5.85

28. In response to the Commission's query on the methodology adopted and applicable rate of interest used for computation of IDC in case of loans obtained with 'floating rate', the Petitioner *vide* affidavit dated 26.10.2021 has submitted that IDC is calculated for the loan with floating rate of interest by multiplying the loan amount with





prevailing interest rate for a particular time period. The changed rate of interest is applied for the next particular time period for which rate of interest is changed. The calculation is done from the date of drawl of loan and up to COD. Further, the Petitioner has submitted that in the tariff calculation for 2019-24 period, Interest on Loan (IoL) has been calculated on the basis of interest rates prevailing as on 1.4.2019 for respective loans.

29. MPPMCL *vide* affidavit dated 18.2.2021 has submitted that the Petitioner has estimated IDC of ₹956.00 lakh against which the actual IDC is ₹276.77 lakh (₹126.86 lakh for Asset-I and ₹149.91 lakh for Asset-II). Therefore, the actual Interest During Construction (IDC) is only 28% of the estimated value. The actual contingency expenditure is zero against the estimated cost of ₹191.18 lakh. On combining these two heads, there is an over-estimation of ₹870.41 lakh. MPPMCL has also submitted that the estimation of IDC and IEDC are deliberately done on the higher side, to show that there is no cost over-run. In response, the Petitioner *vide* affidavit dated 27.10.2021 has submitted that the capital cost incurred upto COD and incurred/ projected during 2019-20, 2020-21, 2021-22 and 2022-23 is duly certified in Auditor's certificate. The capital cost claimed is as per the 2019 Tariff Regulations, and the reasons for item-wise cost variation have also been submitted.

30. We have considered the submission of the Petitioner and MPPMCL. We observe that the cost estimates of the petitioner are not realistic not only in this petition but also in other similar petitions. In our view, the Petitioner should adopt a prudent procedure to make cost estimates of different elements of the transmission projects more realistic.

31. As discussed above in this order, the time over-run in case of the transmission assets has not been condoned. Accordingly, IDC on cash basis up to SCOD has been



worked out on the basis of the loan details given in the statement showing discharge of IDC and Form-9C for the transmission assets. 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 is subject to revision at the time of truing up and it is as follows:

(₹ in lakh)

Assets	IDC as per Auditor Certificate	IDC disallowed due to time over-run not condoned	IDC Allowed	IDC Discharged upto COD
Asset-I	126.86	20.60	106.26	106.26
Asset-II	149.91	25.81	124.10	124.10

32. The Petitioner has claimed IEDC for the transmission assets as per the Auditor Certificate. The Petitioner has further submitted that the entire amount of IEDC for the transmission assets has been discharged up to COD. IEDC claimed as per Auditor's Certificate, IEDC considered and discharged up to COD is as under:

(₹ in lakh)

Assets	IEDC claimed as per Auditor's certificate	IEDC considered as on COD	IEDC discharged up to COD
Asset-I	337.28	337.28	337.28
Asset-II	177.36	177.36	177.36

33. As the time over-run in case of the transmission assets has not been condoned, IEDC for 29 days has been disallowed proportionately. IEDC considered as on COD for the purpose of tariff determination is given in the following table:

(₹ in lakh)

Assets	IEDC as per Auditor's certificate	IEDC disallowed due to time over-run not condoned	IEDC allowed
Asset-I	337.28	12.90	324.38
Asset-II	177.36	6.79	170.57



## Initial Spares

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

*“(d) Transmission System*

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

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

Asset	Components of the Asset	Plant and Machinery cost for calculation of initial spares	Initial Spares claimed		(₹ in lakh)
			Amount (₹)	Percentage (%)	Ceiling limit as per Regulations (in %)
Asset-I	Sub-station (Brown Field)	5902.95	186.04	3.25	6.00
	PLCC	124.73	4.21	3.49	3.50
Asset-II	Sub-station (Brown Field)	6289.09	203.60	3.35	6.00
	PLCC	183.61	0.00	0.00	3.50

36. We have considered the submissions of Petitioner. The Petitioner has claimed the Initial Spares of PLCC separately. The Commission vide order dated 24.1.2021 in Petition No. 126/TT/2020 has already decided that PLCC to be a part of sub-station in terms of various provisions and forms specified in the 2019 Tariff Regulations (and also 2014 Tariff Regulations). Therefore, the Initial Spares have been computed by adding the Plant and Machinery cost of PLCC to Plant and Machinery cost of sub-station and allowed as per the norms specified for sub-station in the 2019 Tariff Regulations. The Initial Spares allowed for the transmission assets as per percentage specified in the 2019 Tariff Regulations is as follows:



Asset	Particulars	Plant and Machinery Cost as on cut-off date (A) (₹ in lakh)	Initial Spares as per Auditor's Certificates (B) (₹ in lakh)	Ceiling (in %) (C)	Initial Spares worked out as per Norms (D) (₹ in lakh)	Excess Claim (₹ in lakh) (E)	Initial Spares allowed (₹ in lakh)
					$D = \frac{[(A-B)*C]}{100-C}$		
For Transmission Sub-station (Brown Field)							
Asset-I	Sub-Station and PLCC	6027.68	190.25	6.00	372.60	-	190.25
Asset-II	Sub-Station and PLCC	6472.70	203.60	6.00	400.16	-	203.60

37. The Initial Spares discharged as per Form-13 is as follows:

(₹ in lakh)

Particulars	Initial Spares Claimed	Initial Spares Discharge			
		As on COD	2019-20	2020-21	Total
Asset-I (Sub-station Brown Field inclusive of PLCC)	190.25	190.25	-	-	190.25
Asset-II (Sub-station Brown Field inclusive of PLCC)	203.60	183.24	20.36	-	203.60

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

(₹ in lakh)

Assets	Capital Cost claimed as on COD (Auditor's Certificate) (A)	IDC Disallowed (B)	IEDC Disallowed (C)	Estimated completion Capital Cost (D)=(A-B-C)
Asset-I	5463.34	20.60	12.90	5429.84
Asset-II	6129.91	25.81	6.79	6097.32

### **Additional Capital Expenditure (ACE)**

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

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

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

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



- accordance with the provisions of Regulation 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 obsolescence of technology; and*
- (d) *The replacement of such asset or equipment has otherwise been allowed by the Commission.”*

40. The Petitioner has claimed that ACE incurred/ projected to be incurred within the cut-off date is mainly on account of Balance and Retention Payments and deferred liabilities and ACE projected after the cut-off date is mainly on account of Balance and



Retention Payments for the works that have been completed within cut-off date. The Petitioner has claimed the following capital cost as on 31.3.2024:

Assets	Capital Cost (as on 31.3.2019/COD)	Projected ACE 2019-24				Capital Cost (as on 31.3.2024)
		2019-20	2020-21	2021-22	2022-23	
Asset-I	5463.34	822.62	105.86	100.00	0.00	6491.82
Asset-II	6129.91	875.90	378.11	0.00	0.00	7383.92
<b>Total</b>	<b>11593.25</b>	<b>1698.52</b>	<b>483.97</b>	<b>100.00</b>	<b>0.00</b>	<b>13875.74</b>

41. MPPMCL has submitted that the Petitioner has not submitted proper justification for ACE claimed. Therefore, ACE claimed for this period may not be allowed. In response, the Petitioner has submitted that the details of ACE claimed has been submitted *vide* affidavit dated 26.10.2021.

42. In response to the Commission's query regarding package-wise and vendor-wise details for ACE claimed in 2019-24, the Petitioner *vide* affidavit dated 26.10.2021 has submitted the following:

**Asset-I**

Year	ACE	Party Name	Package	Balance and Retention/Deferred work
2019-20	822.62	GE T&D Ltd	Sub-station & Reactor	Balance and Retention payment as per Regulation 24(1)(a) of the 2019 Tariff Regulations
2020-21	78.78	GE T&D Ltd	Sub-station & Reactor	Balance and Retention payment and deferred work liability as per Regulation 24(1)(a) and 24(1)(b) of the 2019 Tariff Regulations
2020-21	7.10	Avon Traders	Sub-station Civil work	Deferred work liability as per Regulation 24(1)(b) of the 2019 Tariff Regulations
2020-21	19.98	Ali & Sons	Sub-station Civil work	Deferred work liability as per Regulation 24(1)(b) of the 2019 Tariff Regulations
2021-22	100.00	GE T&D Ltd	Sub-station & Reactor	Deferred work liability as per Regulation 24(1)(b) of the 2019 Tariff Regulations



**Asset-II**

(₹ in lakh)

Year	ACE	Party Name	Package	Balance and Retention/ Deferred work
2019-20	382.14	GE T&D Ltd	Sub-station, IT & PLCC	Balance and Retention payment as per Regulation 24(1)(a) of the 2019 Tariff Regulations
2019-20	493.77	GE T&D Ltd	Civil & Sub- station	Deferred work liability as per Regulation 24(1)(b) of the 2019 Tariff Regulations
2020-21	179.14	GE T&D Ltd	Sub-station & Reactor	Balance and Retention payment as per Regulation 24(1)(a) of the 2019 Tariff Regulations
2020-21	198.98	GE T&D Ltd	Civil & Sub- station	Deferred work liability as per Regulation 24(1)(b) of the 2019 Tariff Regulations

43. We have considered the submissions made by the Petitioner and MPPMCL. ACE claimed by the Petitioner for Asset-I is allowed under Regulation 24(1)(a) of the 2019 Tariff Regulations on account of balance and retention payments for works already executed, Regulation 24(1)(b) of the 2019 Tariff Regulations on account of works deferred for execution and Regulation 25(1)(d) of the 2019 Tariff Regulations for ACE beyond the cut-off date on account of balance and retention payments for works executed within the cut-off date. ACE claimed by the Petitioner for Asset-II has been allowed under Regulation 24(1)(a) of the 2019 Tariff Regulations on account of balance and retention payments for works already executed and Regulation 24(1)(b) of the 2019 Tariff Regulations on account of works deferred for execution. Accordingly, ACE allowed for the 2019-24 period is as follows:

(₹ in lakh)

Assets	ACE			
	2019-20	2020-21	2021-22	2022-23
Asset-I	822.62	105.86	100.00	0.00
Asset-II	875.90	378.11	0.00	0.00

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





(₹ in lakh)

Assets	Capital Cost (as on 31.3.2019/COD)	ACE				Capital Cost (as on 31.3.2024)
		2019-20	2020-21	2021-22	2022-23	
Asset-I	5429.84	822.62	105.86	100.00	0.00	6458.32
Asset-II	6097.32	875.90	378.11	0.00	0.00	7351.33

### **Debt-Equity ratio**

45. 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

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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.”

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

**Asset-I**

Funding	Capital Cost (as on COD) (₹ in lakh)	(in %)	ACE during 2019-24 (₹ in lakh)	(in %)	Capital Cost (as on 31.3.2024) (₹ in lakh)	(in %)
Debt	3800.88	70.00	719.94	70.00	4520.82	70.00
Equity	1628.95	30.00	308.54	30.00	1937.49	30.00
<b>Total</b>	<b>5429.84</b>	<b>100.00</b>	<b>1028.48</b>	<b>100.00</b>	<b>6458.32</b>	<b>100.00</b>

**Asset-II**

Funding	Capital Cost (as on COD) (₹ in lakh)	(in %)	ACE during 2019-24 (₹ in lakh)	(in %)	Capital Cost (as on 31.3.2024) (₹ in lakh)	(in %)
Debt	4268.12	70.00	877.81	70.00	5145.93	70.00
Equity	1829.20	30.00	376.20	30.00	2205.40	30.00
<b>Total</b>	<b>6097.32</b>	<b>100.00</b>	<b>1254.01</b>	<b>100.00</b>	<b>7351.33</b>	<b>100.00</b>

**Depreciation**

47. Regulation 33 of the 2019 Tariff Regulations provides as under:

**“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 31<sup>st</sup> March of the year closing after a period of 12 years from the effective date of commercial operation of the station shall be spread over the balance useful life of the assets.

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

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

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



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

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

- a) twenty five years, in case the generating station or unit thereof is in operation for fifteen years or less as on the date of operation of the emission control system; or
- b) balance useful life of the generating station or unit thereof plus fifteen years, in case the generating station or unit thereof is in operation for more than fifteen years as on the date of operation of the emission control system; or
- c) ten years or a period mutually agreed by the generating company and the beneficiaries, whichever is higher, in case the generating station or unit thereof has completed its useful life.”

48. Depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation up to 31.3.2019. The weighted average rate of depreciation (WAROD) has been worked (Annexure-I for Asset-I and Annexure-II for Asset-II) as per the rates of depreciation specified in the 2019 Tariff Regulations. The depreciation allowed for the transmission assets is as follows:

**Asset-I**

(₹ in lakh)

Particular	2019-20 (Pro-rata 360 days)	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	5429.84	6252.46	6358.32	6458.32	6458.32
Projected ACE	822.62	105.86	100.00	0.00	0.00
Closing Gross Block	6252.46	6358.32	6458.32	6458.32	6458.32
Average Gross Block	5841.15	6305.39	6408.32	6458.32	6458.32
Weighted Average Rate of Depreciation (WAROD) (in %)	5.33	5.42	5.42	5.42	5.42
Balance useful life at the beginning of the year (Year)	25	25	24	23	22
Lapsed Life of the asset (Year)	0	0	1	2	3
Depreciable Value	5264.73	5682.75	5775.39	5820.39	5820.39
<b>Depreciation during the year</b>	<b>311.46</b>	<b>341.81</b>	<b>347.39</b>	<b>350.03</b>	<b>350.03</b>
Cumulative Depreciation at	311.46	653.27	1000.66	1350.69	1700.72



the end of the year					
Remaining Depreciable Value at the end of the year	4953.27	5029.49	4774.73	4469.70	4119.67

### **Asset-II**

(₹ in lakh)

Particular	2019-20 (Pro-rata 360 days)	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	6097.32	6973.22	7351.33	7351.33	7351.33
Projected ACE	875.90	378.11	0.00	0.00	0.00
Closing Gross Block	6973.22	7351.33	7351.33	7351.33	7351.33
Average Gross Block	6535.27	7162.27	7351.33	7351.33	7351.33
Weighted Average Rate of Depreciation (WAROD) (in %)	5.20	5.28	5.28	5.28	5.28
Balance useful life at the beginning of the year (Year)	25	25	24	23	22
Lapsed Life of the asset	0	0	1	2	3
Depreciable Value	5890.24	6455.71	6626.24	6626.24	6626.24
<b>Depreciation during the year</b>	<b>340.04</b>	<b>378.11</b>	<b>388.23</b>	<b>388.23</b>	<b>388.23</b>
Cumulative Depreciation at the end of the year	340.04	718.15	1106.38	1494.61	1882.84
Remaining Depreciable Value at the end of the year	5550.20	5737.55	5519.86	5131.63	4743.40

### **Interest on Loan (IoL)**

49. 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.”*

50. The Weighted Average Rate of IoL (WAROI) has been considered on the basis of rate prevailing as on 1.4.2019. The Petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, during the 2019-24 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true up. Therefore, the following IoL has been allowed in accordance with Regulation 32 of the 2019 Tariff Regulations:

**Asset-I**

(₹ in lakh)

Particulars	2019-20 (Pro-rata 360 days)	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	3800.88	4376.72	4450.82	4520.82	4520.82
Cumulative Repayments upto Previous Year	0.00	311.46	653.27	1000.66	1350.69
Net Loan-Opening	3800.88	4065.26	3797.55	3520.16	3170.13
Additions	575.83	74.10	70.00	0.00	0.00
Repayment during the year	311.46	341.81	347.39	350.03	350.03
Net Loan-Closing	4065.26	3797.55	3520.16	3170.13	2820.10
Average Loan	3933.07	3931.41	3658.86	3345.14	2995.11
Weighted Average Rate of Interest on Loan (in %)	8.2949	8.2536	8.2536	8.2531	8.2505
<b>Interest on Loan</b>	<b>320.90</b>	<b>324.48</b>	<b>301.99</b>	<b>276.08</b>	<b>247.11</b>





## Asset-II

(₹ in lakh)

Particulars	2019-20 (Pro-rata 360 days)	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	4268.12	4881.25	5145.93	5145.93	5145.93
Cumulative Repayments upto Previous Year	0.00	340.04	718.15	1106.38	1494.61
Net Loan-Opening	4268.12	4541.21	4427.78	4039.55	3651.32
Additions	613.13	264.68	0.00	0.00	0.00
Repayment during the year	340.04	378.11	388.23	388.23	388.23
Net Loan-Closing	4541.21	4427.78	4039.55	3651.32	3263.09
Average Loan	4404.67	4484.49	4233.66	3845.43	3457.20
Weighted Average Rate of Interest on Loan (in %)	8.3324	8.3324	8.3324	8.3326	8.3332
<b>Interest on Loan</b>	<b>361.00</b>	<b>373.66</b>	<b>352.76</b>	<b>320.42</b>	<b>288.10</b>

## Return on Equity (RoE)

51. Regulation 30 and Regulation 31 of the 2019 Tariff Regulations provide as under:

**“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:
- rate of return on equity shall be reduced by 0.25% in case of failure to achieve the ramp rate of 1% per minute;
  - 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:

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

52. The Petitioner has submitted that MAT rate is applicable to the Petitioner's company. Accordingly, the MAT rate applicable in 2019-20 has been considered for the purpose of RoE, which shall be trued-up with actual tax rate in accordance with Regulation 31(3) of the 2019 Tariff Regulations. RoE allowed for the transmission assets is as follows:

#### Asset-I

(₹ in lakh)

Particulars	2019-20 (Pro-rata 360 days)	2020-21	2021-22	2022-23	2023-24
Opening Equity	1628.95	1875.74	1907.49	1937.49	1937.49
Additions	246.79	31.76	30.00	0.00	0.00
Closing Equity	1875.74	1907.49	1937.49	1937.49	1937.49
Average Equity	1752.34	1891.62	1922.49	1937.49	1937.49
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (in %)	18.782	18.782	18.782	18.782	18.782
<b>Return on Equity</b>	<b>323.73</b>	<b>355.28</b>	<b>361.08</b>	<b>363.90</b>	<b>363.90</b>

#### Asset-II

(₹ in lakh)

Particulars	2019-20 (Pro-rata 360 days)	2020-21	2021-22	2022-23	2023-24
Opening Equity	1829.20	2091.97	2205.40	2205.40	2205.40
Additions	262.77	113.43	0.00	0.00	0.00
Closing Equity	2091.97	2205.40	2205.40	2205.40	2205.40
Average Equity	1960.58	2148.68	2205.40	2205.40	2205.40
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500



MAT Rate for respective year (in %)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (in %)	18.782	18.782	18.782	18.782	18.782
<b>Return on Equity</b>	<b>362.20</b>	<b>403.57</b>	<b>414.22</b>	<b>414.22</b>	<b>414.22</b>

### **Operation & Maintenance Expenses (O&M Expenses)**

53. 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:

<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
<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>					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	834	864	894	925	958



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

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

*Provided further that:*

- i. the operation and maintenance expenses for new HVDC bi-pole schemes commissioned after 1.4.2019 for a particular year shall be allowed pro-rata on the basis of normative rate of operation and maintenance expenses of similar HVDC bi-pole scheme for the corresponding year of the tariff period;*
  - ii. the O&M expenses norms for HVDC bi-pole line shall be considered as Double Circuit quad AC line;*
  - iii. the O&M expenses of ±500 kV Mundra-Mohindergarh HVDC bipole scheme (2000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±500 kV Talchar-Kolar HVDC bi-pole scheme (2000 MW);*
  - iv. the O&M expenses of ±800 kV Champa-Kurukshetra HVDC bi-pole scheme (3000 MW) shall be on the basis of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme;*
  - v. the O&M expenses of ±800 kV, Alipurduar-Agra HVDC bi-pole scheme (3000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme; and*
  - vi. the O&M expenses of Static Synchronous Compensator and Static Var Compensator shall be worked at 1.5% of original project cost as on commercial operation which shall be escalated at the rate of 3.51% to work out the O&M expenses during the tariff period. The O&M expenses of Static Synchronous Compensator and Static Var Compensator, if required, may be reviewed after three years.*
- (b) The total allowable operation and maintenance expenses for the transmission system shall be calculated by multiplying the number of sub-station bays, transformer capacity of the transformer (in MVA) and km of line length with the applicable norms for the operation and maintenance expenses per bay, per MVA and per km respectively.*
- (c) The Security Expenses and Capital Spares for transmission system shall be allowed separately after prudence check:*



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

**(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.”

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

**Asset-I**

(₹ in lakh)

Particulars	2019-20 (Pro-rata 360 days)	2020-21	2021-22	2022-23	2023-24
<b>Asset-I: 2 Numbers 765 kV Bays ( Raipur-I&amp;II) &amp; 2 Numbers 240 MAVR SLR Bays (4 numbers of 765 kV bays)</b>					
Sub-station	177.08	186.40	192.92	199.72	206.72
Communication System	2.53	2.57	2.57	2.57	2.57
<b>Total O&amp;M expenses</b>	<b>179.61</b>	<b>188.97</b>	<b>195.49</b>	<b>202.29</b>	<b>209.29</b>

**Asset-II**

(₹ in lakh)

Particulars	2019-20 (Pro-rata 360 days)	2020-21	2021-22	2022-23	2023-24
<b>Asset-II: 2 Numbers 765 kV Bays ( Jharsuguda-I&amp;II) &amp; 2 Numbers 240 MAVR SLR Bays (Total 4 numbers of 765 kV bays)</b>					
Substation	177.08	186.40	192.92	199.72	206.72
Communication System	3.69	3.75	3.75	3.75	3.75
<b>Total O&amp;M expenses</b>	<b>180.77</b>	<b>190.15</b>	<b>196.67</b>	<b>203.47</b>	<b>210.47</b>

55. We have considered the submissions of the Petitioner. 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 substation 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.

56. The O&M Expenses allowed out for the transmission assets covered in the instant petition are as follows:

**Asset-I**

(₹ in lakh)

	2019-20 (Pro-rata 360 days)	2020-21	2021-22	2022-23	2023-24
<b>O&amp;M Expenses</b>					
Jharsuguda /Sundargarh:765 kV Raipur I bay					
Norms (₹ lakh/km)	45.01	46.60	48.23	49.93	51.68
Total numbers	1	1	1	1	1
Jharsuguda /Sundargarh:765 kV Raipur II bay					
Norms (₹ lakh/Bay)	45.01	46.6	48.23	49.93	51.68
Total numbers	1	1	1	1	1
Raipur:765 kV Jharsuguda -II bay					
Norms (₹ lakh/Bay)	45.01	46.60	48.23	49.93	51.68
Total numbers	1	1	1	1	1
<b>Total O&amp;M expense allowed (₹ in lakh)</b>	<b>177.09</b>	<b>186.40</b>	<b>192.92</b>	<b>199.72</b>	<b>206.72</b>

**Asset-II**

(₹ in lakh)

	2019-20 (Pro-rata 360 days)	2020-21	2021-22	2022-23	2023-24
<b>O&amp;M Expenses</b>					
Raipur:765 kV Jharsuguda -I bay					
Norms (₹ lakh/km)	45.01	46.60	48.23	49.93	51.68
Total numbers	1	1	1	1	1
Raipur:240 MVAR SLR -I &II Bay					
Norms (₹ lakh/Bay)	45.01	46.6	48.23	49.93	51.68
Total numbers	1	1	1	1	1
Jharsuguda /Sundargarh:240 MVAR SLR I bay					
Norms (₹ lakh/Bay)	45.01	46.60	48.23	49.93	51.68
Total numbers	1	1	1	1	1
Jharsuguda /Sundargarh:240 MVAR SLR II bay					
Norms (₹ lakh/MVA)	45.01	46.60	48.23	49.93	51.68





Total numbers	1	1	1	1	1
<b>Total O&amp;M expense allowed (₹ in lakh)</b>	<b>177.09</b>	<b>186.40</b>	<b>192.92</b>	<b>199.72</b>	<b>206.72</b>

### **Interest on Working Capital (IWC)**

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

**“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;”*

58. 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 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, ROI for 2020-21 has been considered as 11.25% (SBI 1-year MCLR





applicable as on 1.4.2020 of 7.75% plus 350 basis points) whereas, ROI for 2021-22 onwards has been considered as 10.50% (SBI 1-year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points). The components of the working capital and interest thereon allowed are as follows:

**Asset-I**

(₹ in lakh)

Particulars	2019-20 (Pro-rata 360 days)	2020-21	2021-22	2022-23	2023-24
WC for O&M Expenses (O&M Expenses for 1 month)	15.00	15.53	16.08	16.64	17.23
WC for Maintenance Spares (15% of O&M Expenses)	27.01	27.96	28.94	29.96	31.01
WC for Receivables (Equivalent to 45 days of annual transmission charges)	144.41	151.63	150.90	149.21	146.09
Total Working Capital	186.42	195.13	195.91	195.82	194.32
Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
<b>Interest on Working Capital</b>	<b>22.10</b>	<b>21.95</b>	<b>20.57</b>	<b>20.56</b>	<b>20.40</b>

**Asset-II**

(₹ in lakh)

Particulars	2019-20 (Pro-rata 360 days)	2020-21	2021-22	2022-23	2023-24
WC for O&M Expenses (O&M Expenses for 1 month)	15.00	15.53	16.08	16.64	17.23
WC for Maintenance Spares (15% of O&M Expenses)	27.01	27.96	28.94	29.96	31.01
WC for Receivables (Equivalent to 45 days of annual transmission charges)	155.38	168.36	168.98	165.81	162.22
Total Working Capital	197.39	211.85	213.99	212.41	210.45
Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
<b>Interest on Working Capital</b>	<b>23.39</b>	<b>23.83</b>	<b>22.47</b>	<b>22.30</b>	<b>22.10</b>

**Annual Fixed Charges for the 2019-24 Tariff Period**

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



### **Asset-I**

(₹ in lakh)

Particulars	2019-20 (Pro-rata 360 days)	2020-21	2021-22	2022-23	2023-24
Depreciation	311.46	341.81	347.39	350.03	350.03
Interest on Loan	320.90	324.48	301.99	276.08	247.11
Return on Equity	323.73	355.28	361.08	363.90	363.90
O & M Expenses	177.09	186.40	192.92	199.72	206.72
Interest on Working Capital	22.10	21.95	20.57	20.56	20.40
<b>Total</b>	<b>1155.27</b>	<b>1229.93</b>	<b>1223.95</b>	<b>1210.29</b>	<b>1188.17</b>

### **Asset-II**

(₹ in lakh)

Particulars	2019-20 (Pro-rata 360 days)	2020-21	2021-22	2022-23	2023-24
Depreciation	340.04	378.11	388.23	388.23	388.23
Interest on Loan	361.00	373.66	352.76	320.42	288.10
Return on Equity	362.20	403.57	414.22	414.22	414.22
O & M Expenses	177.09	186.40	192.92	199.72	206.72
Interest on Working Capital	23.39	23.83	22.47	22.30	22.10
<b>Total</b>	<b>1263.72</b>	<b>1365.57</b>	<b>1370.60</b>	<b>1344.89</b>	<b>1319.36</b>

### **Filing Fee and the Publication Expenses**

60. 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 & RLDC Fees and Charges**

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

### **Goods and Services Tax**

62. MPPMCL has submitted that GST is not applicable to the electricity sector, therefore, claim for GST shall be disallowed. In response, 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.

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

#### **Security Expenses**

64. The Petitioner has submitted that a separate petition shall be filed before the Commission for claiming the overall Security Expenses and consequential Interest on Working Capital (IWC) on the same. It is proposed to consider actual Security Expense incurred by the petitioner for 2018-19 after escalating the same at 3.5% per annum and estimated additional Security Expenses for new sub-stations to be commissioned in future, for arriving at the Estimated Security Expense for the year 2019-20, 2020-21, 2021-22, 2022-23 and 2023-24. The difference, if any, between the Estimated Security Expenses and Actual Security Expenses calculated as per audited accounts, on year to year basis may be allowed to recover from beneficiaries.

65. We have considered the above submissions of Petitioner. The Petitioner has claimed consolidated security expenses for all the transmission assets owned by it on projected basis for 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19 in Petition No. 260/MP/2020. The said petition has already been disposed of by the Commission vide order dated 3.8.2021. Therefore, security expenses will be shared in terms of the order dated 3.8.2021 in Petition No.



260/MP/2020. Accordingly, the Petitioner’s prayer in the instant petition for allowing it to file a separate petition for claiming the overall security expenses and consequential IWC has become infructuous.

**Capital Spares**

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

**Sharing of Transmission Charges**

67. With effect from 1.7.2011, sharing of transmission charges for inter-State transmission systems was governed by the 2010 Sharing Regulations and with effect from 1.11.2020 (after repeal of the 2010 Sharing Regulations), sharing of transmission charges is governed by the 2020 Sharing Regulations. 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 respective Tariff Regulations and Sharing Regulations and shall be recovered from the concerned DICs through Bills under Regulation 15(2)(b) of the 2020 Sharing Regulations. Billing, collection and disbursement of the 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.

68. To summarise, AFC allowed for the transmission assets for the 2019-24 tariff period in this order are as follows:

**Asset-I**

(₹ in lakh)

Particulars	2019-20 (Pro-rata 360 days)	2020-21	2021-22	2022-23	2023-24
AFC	1155.27	1229.93	1223.95	1210.29	1188.17



**Asset-II**

(₹ in lakh)

Particulars	2019-20 (Pro-rata 360 days)	2020-21	2021-22	2022-23	2023-24
AFC	1263.72	1365.57	1370.60	1344.89	1319.36

69. Annexure-I and Annexure-II given hereinafter shall form part of this order.

70. This order disposes of Petition No. 665/TT/2020 in terms of the above findings and discussions.

**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	Admitted Capital Cost as on COD (₹ in lakh)	Projected ACE (₹ in lakh)		Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)				
		2019-20	2020-21			2019-20	2020-21	2021-22	2022-23	2023-24
Land - Freehold	-	-	-	-	-	-	-	-	-	-
Land - Leasehold	-	-	-	-	3.34%	-	-	-	-	-
Building Civil Works & Colony	-	-	-	-	3.34%	-	-	-	-	-
Transmission Line	-	-	-	-	5.28%	-	-	-	-	-
Sub Station	5311.07	762.08	77.91	6251.06	5.28%	300.54	322.72	327.42	330.06	330.06
PLCC	43.91	56.32	27.95	128.18	6.33%	4.56	7.23	8.11	8.11	8.11
IT Equipment (Incl. Software)	74.86	4.22	-	79.08	15.00%	11.55	11.86	11.86	11.86	11.86
<b>Total</b>	<b>5429.84</b>	<b>822.62</b>	<b>105.86</b>	<b>6458.32</b>		<b>311.46</b>	<b>341.81</b>	<b>347.39</b>	<b>350.03</b>	<b>350.03</b>
<b>Average Gross Block (₹ in lakh)</b>						<b>5841.15</b>	<b>6305.39</b>	<b>6408.32</b>	<b>6458.32</b>	<b>6458.32</b>
<b>Weighted Average Rate of Depreciation</b>						<b>5.33%</b>	<b>5.42%</b>	<b>5.42%</b>	<b>5.42%</b>	<b>5.42%</b>



**ANNEXURE-II**

2019-24 Capital Expenditure	Admitted Capital Cost as on COD (₹ in lakh)	Projected ACE (₹ in lakh)		Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)				
		2019-20	2020-21			2019-20	2020-21	2021-22	2022-23	2023-24
Land - Freehold	-	-	-	-	-	-	-	-	-	-
Land - Leasehold	-	-	-	-	3.34%	-	-	-	-	-
Building Civil Works & Colony	350.78	220.46	29.20	600.44	3.34%	15.40	19.57	20.05	20.05	20.05
Transmission Line	-	-	-	-	5.28%	-	-	-	-	-
Sub Station	5593.99	537.29	332.20	6463.48	5.28%	309.55	332.50	341.27	341.27	341.27
PLCC	75.25	102.70	9.00	186.95	6.33%	8.01	11.55	11.83	11.83	11.83
IT Equipment (Incl. Software)	77.30	15.45	7.71	100.46	15.00%	12.75	14.49	15.07	15.07	15.07
<b>Total</b>	<b>6097.32</b>	<b>875.90</b>	<b>378.11</b>	<b>7351.33</b>		<b>340.04</b>	<b>378.11</b>	<b>388.23</b>	<b>388.23</b>	<b>388.23</b>
<b>Average Gross Block (₹ in lakh)</b>						<b>6535.27</b>	<b>7162.27</b>	<b>7351.33</b>	<b>7351.33</b>	<b>7351.33</b>
<b>Weighted Average Rate of Depreciation</b>						<b>5.20%</b>	<b>5.28%</b>	<b>5.28%</b>	<b>5.28%</b>	<b>5.28%</b>

