CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No. 197/TT/2021

Coram:

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

Date of Order: 12.01.2024

In the matter of:

Approval under Sections 61, 62 and 86 (1) (a) of the Electricity Act, 2003, the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as '2014 Tariff Regulations'), the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as '2019 Tariff Regulations') and the Central Electricity Regulatory Commission (Procedure for making of application for determination of tariff, publication of the application and other related matters) Regulations, 2004 and its amendments for approval of Annual Fixed Cost and truing up for 2014-19 tariff period and determination of tariff for 2019-24 tariff period for the Licensed Transmission Business.

And in the matter of:

Jindal Power Limited (JPL),
Tamnar-496107, District Raigarh,
Chhattisgarh

…Petitioner

Vs

1. MP Power Trading Company Limited,
   Shakti Bhavan, Vidyut Nagar,
   Rampur, Jabalpur- 482008.

2. Jindal Power Limited,
   OP Jindal STPP PO: Tamnar, Gharghoda Tehsil,
   District Raigarh, Chhattisgarh -496107.

3. Lanco Power Limited,
   Plot No. 397, Phase-III, Udyog Vihar,
   Gurgaon, Haryana -122016.

4. ACB (India) Limited,
   Chakabura, Korba,
   Chhattisgarh.

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

6. Gujarat Urja Vikas Nigam Limited,
Sardar Patel Vidyut Bhavan,
Race Course, Vadodara- 390007.

7. Maharashtra State Electricity Distribution Company Limited,
Prakashgad, 5th floor, Bandra,
East Mumbai- 400051.

8. Goa Electricity Department,
Government of Goa, 3rd Floor,
Vidyut Bhavan, Panjim- 403001.

9. Electricity Department,
Union Territory of Daman & Diu Sachivalaya,
Moti Daman, Daman -396210.

10. Electricity Department,
UT of Dadra Nagar and Haveli, Secretariat,
66 kV Amli Road, Silvassa- 396230.

11. Power Grid Corporation of India Limited,
Bhadravati HVDC, Sumthana Village, Bhadravathi Tehsil,
District: Chandrapur, Maharashtra- 442902.

12. Power Grid Corporation of India Limited,
Vindhyachal HVDC, PO Vindhyanagar,
Post Box No. 12, District: Singrauli,
Madhya Pradesh-486885.

13. Power Grid Corporation of India Limited,
Western Region-1 Headquarters, PO: Uppalwadi,
Sampriti Nagar, Nagpur-400026.

14. Torrent Power Grid Limited,
Torrent House, Off: Ashram Road,
Ahmedabad-380009, Gujarat.

15. Western Region Transmission (Maharashtra) Private Limited,
12th floor, Building No. 10-B, DLF Cyber City,
Gurgaon-122002, Haryana.

16. Western Region Transmission Limited (GUJ REL),
Western Region Transmission (Maharashtra) Private Limited,
12th floor, Building No. 10-B, DLF Cyber City,
Gurgaon-122002, Haryana

17. Bharat Aluminium Company Limited (BALCO),
Bharat Aluminum Company Limited, Captive Power Plant -II,
BALCO Nagar, Korba, Chhatisgarh-495684.

18. Jindal Steel & Power Limited,
Dongamahua CPP, Kharsia Road,
Raigarh, Chhattisgarh-496001.

19. ESSAR Power MP Limited,
Thana Road, New Chunkumari Stadium, Waidhan,
District -Singrauli, Madhya Pradesh - 486886.

20. ESSAR Power Transmission Company Limited,
A-5, Sector-3, Gautam Buddha Nagar,
Noida, Uttar Pradesh-201301.

21. KSK Mahanadi Power Company Limited,
8-2-293/82/A/431/A, Road No 22,
Jubilee Hills, Hyderabad-500033.

22. EMCO Limited, Project Head,
Plot No B-l, Mohabala MIDC Growth Centre,
Post Tehsil – Warora, Distt- Chandrapur, Maharashtra.

23. Vandana Vidyut Company Limited,
Director, Vandana Bhavan, M. G. Road,
Raipur, Chhattisgarh.

24. Korba West Power Company Limited,
Village Chhote Bhandar, P.O. Bade Bhandar, Tehsil: Pussore,
District: Raigarh-496 100, Chhattisgarh.

25. DB Power Limited,
Village - Baradarha, Post - Kanwali,
District - Janjgir, Champa, Chhattisgarh – 495695.

26. Jaypee Nigrie STPP,
Jaiprakash Power Ventures Limited,
Sector-128, Noida, Uttar Pradesh – 201304.

27. Essar Steel India Private Limited,
27th KM, Surat Hazira Road,
Surat, Gujarat -394270.

28. Adani Power Limited,
Shikhar, Near Adani House, Mithakhali Six Roads,
Navarangapura, Ahmedabad-380009. **…Respondents**

For Petitioner : Shri Sharansh Shaw, Advocate, JPL
Ms. Divya Chaturvedi, Advocate, JPL

For Respondents : Shri Ravi Sharma, Advocate, MPPMCL

ORDER

The Petitioner, Jindal Power Limited, a transmission licensee has filed the instant petition for truing-up of the transmission tariff for the period from 1.4.2014 to 31.3.2019 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (herein referred to as the "the 2014 Tariff Regulations") and determination of tariff for the period from 1.4.2019 to 31.3.2024 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (herein after referred to as "the 2019 Tariff Regulations") in respect of the following assets (hereinafter referred to as "transmission assets") under "Licensed Transmission Business" (hereinafter referred to as the "the transmission project"):

(i) 400 kV JPL Tamnar-Raipur D/C Transmission Line (258.40 km)

Tamnar Sub-station

(ii) 2 Numbers 315 MVA, 440/220 kV transformer along with 4 Numbers 400 kV bays (2 Numbers line bays and 2 Numbers transformer bays) and

(iii) 2 Numbers 220 kV transformer bays at Tamnar Sub-station.

Raipur Sub-station

(iv) 2 Numbers 400 kV line bays

(v) 2 Numbers 400 kV tie bays and

(vi) 2x50 MVAR non-switchable reactor at Raipur Sub-station.

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

a. *"Examine the proposal submitted by the petitioner for a favourable consideration as detailed in the enclosed petition, along with any clarifications submitted in this regard;*

b. *Grant exemptions as sought by the licensee in regard to information required in some formats as specified by the Hon'ble Commission, for which relevant data could not be provided;*

c. *Pass appropriate orders towards approving the proposed AFC and determine tariff for the transmission licensee for FYs 2019-20, 2020-21, 2021-22, 2022-23 and 2023-24;*

d. *Pass appropriate orders towards truing up of the AFC for FY 2014-15, FY 2015-16, FY 2016-17, FY 2017-18 and FY 2018-19 and the carrying cost on account of the revenue gap;*

e. *Allow the petitioner to recover the filing fee of Rs. 5.30 Lakh for FY 2019-20 from its beneficiaries in terms of Regulation 70 of the CERC Tariff Regulations 2019;*

f. *Condone any inadvertent omissions/errors/shortcomings and permit JPL to make further submissions as may be required at a future date to support this petition in terms of modification / clarification;*

g. *Condone the delay in filing the petition, as the petitioner had to collate all the relevant information and data including information from previous petitions and orders; and*

Pass such further orders, as the Hon'ble Commission may deem fit and proper, keeping in view of the facts and circumstances of the case."

Background

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

(a) The Petitioner had set up a Thermal Power Plant at Tamnar, District Raigarh, Chhattisgarh having capacity of 1000 (4 x 250) MW and as a part of the generation project, the Petitioner had established a dedicated transmission line of 258.40 km in length for connecting the generating station to the inter-State transmission system (ISTS) for onward transmission of power. The generating units of the Petitioner's plant is also connected with the various units of another group company i.e., Jindal Steel and Power Ltd (JSPL). JSPL had also set up a captive plant of 358 MW and was in the process of commissioning 450 MW plant. JSPL intended to sell its surplus power through use of the dedicated transmission line of JPL.

(b) Subsequently the Petitioner approached the Commission for grant of inter-State transmission license for use of the aforesaid dedicated line as ISTS.

The Commission vide order dated 9.5.2011 in Petition No. 105/2010 granted Transmission License to the Petitioner in respect of 400 kV D/C JPL Tamnar-Raipur (PGCIL) Transmission Line and 400/220/33 kV JPL Tamnar Substation (hereinafter ‘Transmission Asset’) for a period of 25 years. However, Petitioner had inadvertently failed to include additional transmission assets i.e., 2 numbers 400 kV line bays, 2 numbers 400 kV tie bays and 2 numbers 50 MVAR non-switchable Reactors at Raipur sub-station of PGCIL (hereinafter ‘Additional Transmission Asset’) in its application for grant of transmission license. Therefore, at the time of determination of transmission charges from 9.5.2011 to 31.3.2014, in respect of the ‘Transmission Asset’ covered in the transmission licence issued vide order dated 9.5.2011 in Petition No. 105/2010, the Commission vide Order dated 18.12.2015 in Petition No. 135/TT/2012 did not consider the above ‘Additional Transmission Asset’.

(c) Thereafter, the Petitioner filed Petition No. 262/MP/2017 dated 30.11.2017, seeking amendment to the Transmission License dated 9.5.2011 to include the ‘Additional Transmission Asset’. The Commission *vide* order dated 30.4.2019 (hereinafter ‘Amendment Order’) in Petition No. 262/MP/2017 allowed the amendment and included the above ‘Additional Transmission Asset’ as part of the Transmission License granted to the Petitioner. The relevant portion of the Amendment Order dated 30.4.2019 is extracted as follows:

> *“31. The transmission tariff of the left-out equipment i.e. 2 nos. 400 kV Line bays, 2 nos. 400 kV Tie bays and 2 nos. 50 MVAr non-switchable Reactors may be claimed by the Petitioner as per the extant CERC Tariff Regulations and the tariff would be granted from the date of issue of amended license as per order in the instant petition, after adjustment of depreciation. Further, the amendment of the license would be subject to the outcome of the Appeal No. 210 of 2016 in APTEL*

filed by CSPDCL.”

(d) Thus, the Commission *vide* amendment order dated 30.4.2019 has directed *inter-alia* that the transmission charges for the ‘Additional Transmission Asset’ would be granted from the date of issue of amendment of license i.e. 30.4.2019. Accordingly, the Petitioner has submitted the proposal of determination of transmission charges in respect of ‘Additional Transmission Asset’ for 2019-24 tariff period in the instant petition. Further, as directed by the Commission the Petitioner has adjusted the accumulated depreciation during 2011-19, while arriving at the capital cost.

(e) Meanwhile, the Commission *vide* order dated 18.12.2015 in Petition No. 135/TT/2012 allowed the tariff for the transmission asset from 9.5.2011 to 31.3.2014. However, RoE and IoL was not allowed, based on the financial data submitted by the Petitioner, but the Commission had given liberty to the Petitioner to submit segregated accounts, with equity allocated separately for transmission business along with the audited balance sheet of transmission and generation business at the time of true-up. As directed, the Petitioner filed the segregated Audited Balance Sheets between generation and transmission at the time of true-up in Petition No. 313/TT/2014. The Commission *vide* order dated 15.12.2017 in Petition No. 313/TT/2014 considered the submissions of the Petitioner and trued-up the tariff for 2009-14 period along with the determination of tariff of 2014-19 tariff period.

(f) Aggrieved by the order dated 18.12.2015 in Petition No. 135/TT/2012, the Petitioner filed Review Petition No. 6/RP/2016. However, the Petitioner’s claim for Return on Equity (RoE) and Interest on Loan (IoL) was again disallowed vide order dated 8.2.2017 in Review Petition No. 6/RP/2016.

Aggrieved, the Petitioner filed Appeal No. 143 of 2017 before the Hon'ble APTEL against the Commission's above orders dated 18.12.2015 and 8.2.2017. Thereafter, the Petitioner filed Appeal No.17 of 2018 with the Hon'ble APTEL against the Commission's order dated 15.12.2017 in Petition No. 313/TT/2014. The said appeals were pending adjudication before the Hon'ble Appellate Tribunal for Electricity at the time of filing of the instant petition.

(g) Chhattisgarh State Power Distribution Company Limited (CSPDCL) has filed an Appeal No. 210/2016 before the APTEL against the Commission's order dated 9.5.2011 in Petition No.105/2010 in the context of rejection of its prayer for cancellation of the Transmission License of the Petitioner by the Commission. Further, CSPDCL has challenged the tariff order dated 18.12.2015 passed by this Hon'ble Commission in Petition No.135/TT/2012 wherein it has *inter-alia* challenged the nature of the transmission line of the Appellant and CPSDCL's liability to pay transmission charges as a beneficiary of the Transmission System of the Petitioner. The Appeal No. 210/2016 is pending adjudication and the pleadings are complete in the matter before the APTEL.

(h) Now, the Petitioner has filed the instant petition for true up of the 2014-19 tariff period allowed *vide* order dated 15.12.2017 in Petition No. 313/TT/2014 along with determination of transmission tariff of the 2019-24 tariff period for (i) 400 kV D/C JPL Tamnar-PGCIL Raipur Transmission Line, (ii) 2 Numbers 315 MVA, 400/220 kV transformer along with 4 Numbers 400 kV bays at Tamnar, and (iii) 2 Numbers 220 kV bays at Tamnar Sub-station ('Transmission Asset') covered under Transmission License dated 9.5.2011 along with determination of transmission tariff of the 2019-24 tariff period for (iv) 02 Numbers 400 kV line bays, (v) 02 Numbers 400 kV tie bays and (v) 2x50 MVAR non-switchable at Raipur Sub-station of PGCIL (**'**Additional Transmission Asset') covered under the Amendment to Transmission Licence dated 30.4.2019.

(i) The Commission granted transmission license to the Petitioner vide order dated 9.5.2011 in Petition No. 105/2010 and subsequent amendment to the license dated 30.4.2019 in Petition no. 262/MP/2017. The transmission assets covered under the license (including amended license) are as under:

a) 400 kV D/C JPL Tamnar - Raipur line (258.40 km),
b) 2 Nos. 315 MVA, 400/220 kV transformer along with 4 Nos. of 400 kV bays, and
c) 2 Nos. of 220 kV bays at Tamnar Sub-station.
d) 2 Nos of 400 kV Main bays;
e) 2 Nos of 400 kV Tie bays;
f) 2 Nos of 400 kV, 50 MVAR Reactors.

(j) The entire scope of work under the original license dated 9.5.2011 and amended transmission license dated 30.4.2019 has been completed and covered in the instant petition. After issuance of transmission license & amended license, the assets are considered to be part of the ISTS system with effect from respective 'effective dates' of 9.5.2011 & 30.4.2019, respectively. The details of petitions filed by the Petitioner under the transmission project are as follows:

Sl. No.	**Asset Name**	**Actual COD/ Effective date**	**Covered under Petition**
Transmission Asset covered under License dated 9.5.2011			
1	(a) 400 kV D/C JPL Tamnar-Raipur (PGCIL) Transmission Line	9.5.2011	Covered in the instant petition for true up of

Sl. No.	Asset Name	Actual COD/ Effective date	Covered under Petition
2	(b) 2 Numbers 315 MVA, 400/220 kV transformers along with 4 Numbers 400 kV bays at Tamnar (JPL) Substation		2014-19 tariff allowed *vide* order dated 15.12.2017 in Petition No. 313/TT/2014 along with determination of tariff for 2019-24 period
3	(c) 2 Numbers 220 kV bays at Tamnar (JPL) Sub-station		
Transmission Asset covered under Amended License dated 30.4.2019			
4	(d) 2 Numbers 400 kV line bays at Raipur (PGCIL) Sub-station	30.4.2019	Covered in the instant petition for determination of tariff from 30.4.2019 to 31.3.2024
5	(e) 2 Numbers 400 kV tie bays at Raipur (PGCIL) Sub-station		
6	(f) 2x50 MVAr non-switchable Reactors at Raipur (PGCIL) Sub-station		

(k) The present petition is filed by the Petitioner for truing up of tariff of 2014-19 tariff period in accordance with the 2014 Tariff Regulations and determination of tariff for the 2019-24 tariff period in accordance with the 2019 Tariff Regulations.

4. The Respondents are distribution licensees, power departments and transmission licensees, who 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 of this application 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. MPPMCL, Respondent No. 1, has filed its reply vide affidavit dated 21.12.2021 and has raised issues of additional capitalisation, revenue gap, left out asset, incentives due to system availability and debt equity ratio. The Petitioner vide affidavit dated 20.1.2022 has filed rejoinder to the reply

of MPPMCL. The issues raised by MPPMCL and clarifications given by the Petitioner have been dealt in the relevant portions of this order.

6. Hearing in this matter was held on 14.9.2022 and the order was reserved.

7. After, the order was reserved in respect of this petition and before the order could be issued, the Hon'ble APTEL has delivered its judgment in respect of appeals filed by the Petitioner. The referred APTEL judgement has been filed by the petitioner vide affidavit dated 27.12.2023. In its order dated 15.12.2023, the Hon'ble APTEL has stated as follows:

> "*……The Captioned Appeals Nos.143 of 2017 and 17 of 2018 filed by JPL, the Appellant have merit and allowed. The Impugned Orders dated 18.12.2015 in Petition No. 135/TT/2012, dated 08.02.2017 in Review Petition No. 6/RP/2016 in Petition No. 135/TT/2012 and the Order dated 15.12.2017 in Petition No. 313/TT/2014 passed by the Central Commission are set aside limited to the extent of equity, return on equity and interest on loan and in accordance with the observation and conclusion made in the preceding paragraphs.*
>
> *The claim of the Appellant shall be in accordance to Debt: Equity ratio of 80:20 for return on equity and interest on loan, considering the GFA of the transmission asset...".*

8. Further the Petitioner in the referred affidavit dated 27.12.2023 has reiterated their prayer that the claims pertaining to tariff determination for FY 2019-20 to FY 2023-24 and the true up for FY 2014-15 to FY 2018-19 be allowed to the Petitioner along with carrying cost in terms of settled legal position as per the Hon'ble Supreme Court judgement dated 24.8.2022 in CA No.7129/2021: Uttar Haryana Bijli Vitran Nigam Ltd. & Anr Vs. Adani Power (Mundra) Limited & Anr. and the Hon'ble APTEL judgement dated 15.9.2022 in appeal no. 256/2019: Parampujya Solar Energy Limited vs Central Electricity Regulatory Commission.

9. This order is issued considering the submissions made by the Petitioner *vide* affidavit in the petition dated 29.12.2020 and the Petitioner's affidavits dated 8.11.2022, MPPMCL's reply filed *vide* affidavit dated 21.12.2021, Petitioner's

rejoinder *vide* affidavit dated 20.1.2022 in the matter, Hon'ble APTEL's judgment vide order dated 15.12.2023 and the Petitioner's affidavit dated 27.12.2023.

10. Having heard the learned counsel for MPPMCL and the Petitioner and after perusal of the materials on record, we proceed to dispose of the petition.

TRUING-UP OF ANNUAL FIXED CHARGES FOR THE 2014-19 TARIFF PERIOD

11. The details of the trued-up transmission charges claimed by the Petitioner are as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	1271.64	1288.43	1305.23	1305.23	1305.23
Interest on Loan	1437.71	1334.42	1229.43	1097.79	966.14
Return on equity	1108.23	1126.19	1138.79	1138.79	1141.84
O&M Expenses	508.31	525.31	542.69	560.69	579.31
Interest on Working Capital	115.95	115.31	114.54	112.50	110.57
Incentives on System Availability	55.27	46.53	46.54	52.56	35.05
Total	**4497.11**	**4436.19**	**4377.22**	**4267.56**	**4138.13**

12. The details of trued up Interest on Working Capital (IWC) claimed by the Petitioner are as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M expenses	42.36	43.78	45.22	46.72	48.28
Maintenance Spares	76.25	78.80	81.40	84.10	86.90
Receivables	740.31	731.61	721.78	702.50	683.85
Total	**858.91**	**854.18**	**848.41**	**833.33**	**819.02**
Rate of Interest (in %)	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on Working Capital	**115.95**	**115.31**	**114.54**	**112.50**	**110.57**

Capital Cost as on 1.4.2014

13. The Capital cost of the transmission asset has been calculated in accordance with Regulations 9(3) and Regulation 9(6) of the 2014 Tariff Regulations. The Commission vide order dated 15.12.2017 in Petition No. 313/TT/2014 approved the transmission tariff in respect of the transmission asset for the 2014-19 tariff period based on admitted capital cost of ₹24228.42 lakh as

on 31.3.2014. Therefore, the admitted capital cost of ₹24228.42 lakh as on 31.3.2014 has been considered as the capital cost as on 1.4.2014 for working out the trued-up tariff for the 2014-19 tariff period.

Additional Capital Expenditure (ACE)

14. The Petitioner had claimed ACE of ₹639.81 lakh for bus reactor in switchyard during the financial year 2015-16 in Petition No. 313/TT/2014. The Commission *vide* order dated 15.12.2017 in Petition No. 313/TT/2014 did not allow the ACE for 2014-19 period. However, the Petitioner was granted liberty to approach the Commission at the time of truing up petition, if the requirement of bus reactor is recommended by Standing Committee and the concerned RPC as a requirement of the grid. The relevant portion of the said order dated 15.12.2017 is extracted and the same is as follows:

> *"38. In our view, if the addition of bus reactor is owing to the grid requirement, then such a requirement of bus reactor needs to be examined by supporting technical study and should be discussed at the concerned RPC for the consent of the beneficiaries. Since no such consent has been furnished, the additional capitalization on this account is not allowed towards transmission system. However, the petitioner is granted liberty to approach the Commission at the time of truing up petition, if the requirement of bus reactor is recommended by Standing Committee and the concerned RPC as a requirement of the grid.*
>
> *39. Based on the above, capital cost as on 31.3.2019 is considered at ₹24228.42 lakh, as no additional capital has been allowed."*

15. In response to above, the Petitioner has submitted that JPL had inadvertently missed the claims of the additional capital expenditure of ₹639.81 lakh on account of the said bus reactor in financial year 2012-13 and claimed the same during the financial year 2015-16 under Regulation 14(3)(ix) of the 2014 Tariff Regulations. Further, as directed by the Commission to submit the recommendation of Standing Committee and RPC, the Petitioner has submitted that a study was carried out by PGCIL to decide the requirement of Bus Reactor.

The study report was submitted by PGCIL in May 2010. In the study report, PGCIL concluded that as per the studies carried out for reactive compensation at 400 kV JPL Tamnar TPS, there is a requirement of 1x125 MVAR Bus Reactor at JPL Tamnar 400 kV Bus.

16. Later, the issue of bus reactor was discussed in the 33rd Standing Committee Meeting on Power System Planning held on 21.10.2011. The Petitioner has submitted copy of minutes of the above SCM dated 21.10.2021. During the meeting, PGCIL stated that it has carried out studies of all available standard ratings of reactors such as, 50, 63, 80 and 125 MVAR, in order to optimize the requirement of planned reactors. It was found that considering the strong interconnections of buses, the sensitivity of lower rating towards controlling high voltage is low, due to which higher available rating of reactor viz. 1 number 125 MVAR bus reactor has been considered (Refer para 15.3 of the minutes).

17. Further, as recorded in the Minutes of Meeting of the 21st Western Regional, Power Committee (WRPC) held on 9.11.2012 there were instances of low and high voltages beyond the IEGC specified operating range at some of the EHV sub-stations in the Western Region. Thus, in order to control incidences of high voltages during low load periods and as per approval of the 33rd Standing Committee of Western Region and subsequent discussion in 21st WRPC meeting, the Petitioner installed 1 number 125 MVAR reactor at JPL Tamnar Switchyard.

18. The Respondent, MPPMCL *vide* affidavit dated 21.12.2021 has submitted that the Petitioner has annexed incomplete and unsigned study report conducted by PGCIL in May, 2010 regarding Reactive Power Compensation at JPL Tamnar TPS (4*250 MW). Petitioner in present Petition is trying to mislead here that study report conducted by PGCIL in May, 2010 regarding Reactive Power Compensation

at JPL Tamnar TPS (4*250 MW) is a kind of recommendation of Standing Committee and the concerned RPC which support Petitioner's claim on account of expenditure incurred amounting to ₹6.40 crore on account of 'Bus Reactor in SWYD' incurred during the FY 2015-16 and it is a requirement of the grid. Respondent MPPMCL has submitted that either Petitioner has not understood the study report conducted by PGCIL in May, 2010 regarding Reactive Power Compensation at JPL Tamnar TPS (4*250 MW) or trying to mislead the Central Commission because of following reasons:

a. Report of PGCIL Reactive Power Compensation at JPL Tamnar TPS (4*250 MW) is different and dealt with reactive power flow of Petitioner's Thermal Power plant. However, the Commission had directed system studies of bus reactor in SWYD in Petitioner's Transmission Asset;
b. A study report which was conducted in May, 2010 by PGCIL cannot be considered & equated as a systems study for 'bus reactor in SWYD' which was implemented during the FY 2015-16;
c. Authority and jurisdiction of PGCIL cannot be equated with studies and recommendations of Standing Committee and the concerned RPC.
d. Study report annexed along with Petition is unsigned and contents selectively produced therefore, authenticity of the same is doubtful and non-reliable.
e. In view of aforesaid, claim of Petitioner amounting to ₹6.40 crore on account of 'Bus Reactor in SWYD' incurred during FY 2015-16 is not justifiable, without any basis hence, and liable to be rejected.

19. In response, the Petitioner *vide* affidavit dated 20.1.2022 has submitted that the Petitioner has incurred an additional capital expenditure of ₹6.40 crore for installation of 'Bus Reactor in SWYD' during FY 2015-16 which was necessary and imperative for the successful and efficient operation of transmission system as a voltage controlling device which controls the high voltage fluctuation. Further, the

installation of the bus reactor was done in financial year 2012-13 keeping in mind the PGCIL's report of May, 2010 prepared by PGCIL wherein, PGCIL concluded that 1x125 MVAR bus reactor is required at JPL Tamnar 400 kV Bus on the basis of studies carried out for reactive compensation at 400 kV JPL Tamnar TPS. Furthermore, the 33rd Standing Committee Meeting ("SCM") on Power System Planning held on 21.10.2011 along with the 21st Western Regional Power Committee ("WRPC") Meeting held on 9.11.2012 indicate that there were instances of low and high voltages beyond the Indian Electricity Grid Code ("IEGC") specified operating range at some of the EHV sub-stations in the Western Region. Thus, in order to control incidences of high voltages during low load periods in the grid and as per approval of the 33rd Standing Committee of Western Region and subsequent discussion in 21st WRPC meeting, the Petitioner installed the said bus reactor. A reading of the above categorically establishes that the study conducted by PGCIL in 2010 pertains to the bus reactor required at JPL Tamnar Switchyard for 400 kV JPL Tamnar – PGCIL Raipur D/C Transmission Line, which is an integral part of the Petitioner's Transmission Asset. Therefore, the contention of MPPMCL that the said bus reactor only pertains to the generation project of the Petitioner is not correct.

20. In addition to the aforesaid, the Petitioner has submitted that the status of commissioning of the said bus reactor was noted in the Minutes of 444th Meeting of Operation & Coordination Sub-committee of WRPC held on 12.2.2013 and the Petitioner had installed the 1X125 MVAR bus reactor at Tamnar 400 kV Sub-Station in 2012-13 as per the requirement of grid security. Thus, the cost of the bus reactor ought to be granted to the Petitioner as ACE under the provisions of Regulation 14(3)(ix) of the 2014 Tariff Regulations and the contention of MPPMCL

may be rejected.

21. We have considered the submissions of the Petitioner and MPPMCL. The Petitioner claimed an amount of ₹639.81 lakh towards bus reactor installed at Tamnar in Raigarh in Petition No. 313/TT/2014, wherein the Commission *vide* order dated 15.12.2017 held as follows:

> *"38. In our view, if the addition of bus reactor is owing to the grid requirement, then such a requirement of bus reactor needs to be examined by supporting technical study and should be discussed at the concerned RPC for the consent of the beneficiaries. Since no such consent has been furnished, the additional capitalization on this account is not allowed towards transmission system. However, the petitioner is granted liberty to approach the Commission at the time of truing up petition, if the requirement of bus reactor is recommended by Standing Committee and the concerned RPC as a requirement of the grid."*

22. Accordingly, the Petitioner has claimed ACE towards said bus reactor in the instant petition along with justification and approval of Standing Committee and RPC as per the above direction of the Commission. The Petitioner has submitted a study report of May 2010 carried out by PGCIL wherein, it has been concluded that there is a requirement of 1x125 MVAR Bus Reactor at JPL Tamnar 400 kV Bus, as per the studies carried out for reactive compensation at 400 kV JPL Tamnar TPS. Further, the installation of 125 MVAR Bus Reactor has been discussed and approved in 33rd Standing Committee Meeting ("SCM") on Power System Planning held on 21.10.2011 and also agreed in the 21st Western Regional Power Committee ("WRPC") meeting held on 9.11.2012. The status of installation of the said bus reactor was also reviewed in the 444th Meeting of Operation and Coordination Sub-Committee of WRPC held on 12.2.2013.

23. We have gone through the minutes of the 33rd Standing Committee Meeting and 21st Western Regional Power Committee. Taking into consideration the discussions held in of the 33rd SCM of WR and subsequently in 21st WRPC meeting, the ACE of ₹639.81 lakh claimed by the Petitioner towards 1x125 MVAR

Bus Reactor at JPL Tamnar during the financial year 2015-16 is allowed under Regulation 14(3)(ix) of the 2014 Tariff Regulations.

Capital cost for the tariff period 2014-19

24. In view of above, the capital cost considered for truing up of tariff for the 2014-19 tariff period is as follows:

(₹ in lakh)

Capital Cost Allowed as on 1.4.2014	ACE 2014-19	Capital Cost as on 31.3.2019
24228.42	639.81	24868.23

25. Accordingly, capital cost approved *vide* order dated 15.12.2017 in Petition No. 313/TT/2014, claimed by the Petitioner in the instant petition and trued up capital cost in respect of the transmission asset is as follows:

(₹ in lakh)

Capital Cost	Capital Cost Allowed as on 1.4.2014	ACE 2014-19	Capital Cost as on 31.3.2019
Approved *vide* order dated 15.12.2017 in Petition No. 313/TT/2014	24228.42	0.00	24228.42
As claimed by the Petitioner in the instant petition	24228.42	639.81	24868.23
Allowed after true-up in this order	24228.42	639.81	24868.23

Debt-Equity Ratio

26. Regulation 19(3) of the 2014 Tariff Regulations provides as follows:

> *"(3) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2014, debt equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2014 shall be considered."*

Further as per regulation 19(1) of '2014 tariff regulations'…….

> *"(1) For a project declared under commercial operation on or after 1.4.2014, the debt equity ratio would be considered as 70:30 as on COD. 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"*

27. The Commission *vide* order dated 15.12.2017 in Petition No. 313/TT/2017 has held as follows:

> *"41. As discussed in Debt Equity Ratio, return on equity and interest on loan paragraphs as a part of 2014-19 true-up tariff, the petitioner is not entitled for Return on Equity and interest on loan."*

28. MPPMCL has submitted that the Commission in earlier orders in the matter has appropriately considered the figures for debt equity ratio. Further, there was neither any investment nor any outstanding loan deployed as on date of commercial operation (effective date) and therefore, no Return on Equity or Interest on Loan Capital can be granted. Therefore, the Petitioner's claim for any return on equity and interest on loan and depreciation may not be allowed.

29. The Petitioner has submitted that Commission *vide* order dated 18.12.2015 in Petition No.135/TT/2012 for 2011-14 period and order dated 15.12.2017 in Petition No. 313/TT/2014 for 2014-19 period had disallowed Return on Equity (RoE) and Interest on Loan (IoL). In the Order dated 18.12.2015, the Commission held that the loan taken for the transmission business had been repaid by the Petitioner prior to the grant of transmission license dated 9.5.2011. Similarly, in the order dated 15.12.2017, the Commission disallowed RoE and IoL by concluding that there was neither any investment in equity nor any outstanding loan deployed, thereby considering debt-equity ratio as 0:0.

30. Aggrieved by the order dated 18.12.2015 in Petition No. 135/TT/2012, the Petitioner had filed Review Petition No. 6/RP/2016. However, the Petitioner's claim for Return on Equity (RoE) and Interest on Loan (IoL) was disallowed vide order dated 8.2.2017 in Review Petition No. 6/RP/2016. Aggrieved, the Petitioner filed Appeal No. 143 of 2017 with the Hon'ble APTEL against the Commission's above orders dated 18.12.2015 and 8.2.2017. Thereafter, the Petitioner filed Appeal No.

17 of 2018 with the Hon'ble APTEL against the Commission's order dated 15.12.2017 in Petition No. 313/TT/2014.

31. The Petitioner in the instant petition has submitted that:

(i) The license for the Licensed Transmission Business was awarded to JPL on 09.05.2011 while the assets were commissioned prior to this date. At the time of commissioning of the transmission system (that eventually was awarded the license), JPL did not have the license and the debt and equity financing was raised for the entire business of JPL as a whole. Thus, there was no distinction between the financing undertaken for the licensed and non-licensed business of JPL. The Licensed Transmission Business was integrated with the 1000 MW generation plant before award of license on 09.05.2011.

(ii) The debt equity ratio maintained by JPL for financing the integrated project (1000 MW generation plant along with the licensed transmission business) was 80:20. JPL had repaid the entire debt in January 2011. In other words, the entire project (including the assets constituting a part of the Licensed Transmission Business) was being funded through equity as on 9.5.2011, the date of obtaining the license.

(iii) The Commission vide order dated 15.12.2017 in Petition 313/TT/2014, had stated that as on the date of commercial operation, there was neither any investment in equity nor any outstanding loan deployed, thereby considering debt equity ratio as 0:0 and disallowing Return on Equity (RoE) and Interest on Loan.

(iv) Aggrieved by the above finding of the Hon'ble Commission, JPL has filed an Appeal No. 17 of 2018 in the Hon'ble Tribunal challenging the order dated 15.12.2017.

(v) The repayment of loan availed for the project, was made from 'reserves and surplus', i.e., by substitution of equity from the shareholders' fund in place of loan borrowed from the lenders between the period from actual commercial operation date (16.8.2008) and grant of Transmission License (i.e., 9.5.2011).

(vi) Further, Regulation 19 of the 2014 Tariff Regulations, provide that any investment made by the generating company or the transmission licensee from its internal resources created out of its free reserves for funding of project/assets has to be treated as paid up capital for the purpose of computing ‘return on equity’. Therefore, the Petitioner is entitled to deploy the fund for the project cost including the free reserves and retained earnings and swap the actual loan taken from lenders, which in essence amounts to equity.

(vii) The Petitioner has submitted that, in accordance with Regulation 12(1) of the CERC Tariff Regulations, 2009, any excess of equity infusion over and above 20% of the project capital cost was to be treated as a normative debt. Thus, repayment of loan prior to commercial date of operation does not in any manner affect the entitlement of the Petitioner on interest on loan. Therefore, the Commission ought to have considered the Debt Equity ratio at 80:20 at all times irrespective of equity deployment in excess of 20% and such normative debt was to be serviced by interest on loan.

32. We have considered the submissions of MPPMCL and the Petitioner as well as the Hon’ble APTEL judgment dated 15.12.2023 in Appeal Nos. 143 of 2017 and 17 of 2018 submitted by the petitioner vide affidavit dated 27.12.2023. The Commission has noted that Hon’ble APTEL in the above referred order has made the following observations on the Appellant’s submissions (the petitioner in the instant petition):

(i) That, the Appellant has submitted all the required data vide its affidavits dated 29.04.2017, 08.07.2017, 11.08.2017 and 31.08.2017 and also in the truing-up proceedings before the Central Commission, however, the Central Commission observed that the segregated balance sheet for FY 2008-09 reflects an Inter Division Balance for FY 2008-09 while the Balance Sheet for FY 2009-10 submitted by Appellant does not reflect any Inter Division Balance and amounts of Rs. 6436.89 Lakhs as equity and Rs. 25749.58 Lakhs are reflected as secured loan.

(ii) That, the Central Commission observation that the Director’s Report and Annual Reports are silent on the allocation of assets between generation and transmission is not correct, as the Appellant placed before the Hon'ble APTEL the copy of the consolidated balance sheet as on 31.03.2009, as also the copies of the segregated balance sheets as on 31.03.2009, 31.03.2010, 31.03.2011, 31.03.2012 and 09.05.2011.

(iii) That, It also placed before the Hon'ble APTEL the Director's Report and Annual Reports along with all segregated accounts from FY 2008-09 onwards certified by its auditors. These documents were also placed before the Commission during the truing-up proceedings by the Appellant vide affidavit dated 29.04.2017 wherein they had submitted that the Director's report contains the statement of all the company's affairs for the entire financial year and is not prepared for an intermittent period and the Director's Reports and Annual Reports cannot provide retrospectively the segregation of accounts.

(iv) That, the Appellant submitted that the auditors, prior to the directions of CERC, had prepared the Balance sheets and other financial statements of JPL in terms of then existing Accounting Standards (AS) -10 as well as taking into account the Director's Responsibility Statement in terms of the erstwhile Section 217 of the Companies Act, 1956 (now Section 164(5) of the Companies Act, 2013), the AS-10 (Sr. No.10) which provided for accounting of Fixed Assets, including self-constructed fixed assets. At the time of grant of Transmission License to JPL, i.e., on 09.05.2011, CERC (Sharing of revenue derived from utilisation of transmission assets for other business) Regulations, 2007 were in effect, wherein, Regulation 6 provided that the transmission owner shall maintain separate books of accounts for each of the other business, and separately from those of the transmission business and submit copies of the balance sheet, profit and loss account for the period ending 31st March, the auditors reports and notes on accounts to the Commission annually on or before 31st October of the year. However, these regulations did not provide any format for maintenance of the aforesaid accounts, but stipulated the following conditions:

> *"6. Maintenance of accounts. (1) The transmission owner shall maintain separate books of accounts for each of the other business, and separately from those of the transmission business and submit copies of the balance sheet, profit and loss account for the period ending 31st March, the auditor's*

report and notes on accounts to the Commission annually on or before 31st October of the year.

(2) The books of accounts for the other business shall, inter alia, contain the details of revenue, cost, asset, liability, reserve, provision charged from or to the other business together with the basis for apportionment or allocation of charges between the transmission business and the other business."

(v) That, none of the aforesaid Standards/Statute/Regulations, i.e., Accounting Standards, the Companies Act, 1956 (Section 210 and 211 read with Schedule VI), Companies Act, 2013 (Section 129 read with Schedule-III), or CERC (Sharing of revenue derived from utilisation of transmission assets for other business) Regulations provide for preparation of segregated balance sheets for generation and transmission assets of JPL.

(vi) That, it cannot be disputed that there is a difference between the Regulatory Accounting and Accounting as per Companies Act. As per the CERC regulations even if 100% equity is deployed by the developer, the debt-equity ratio of 70:30 is required to be maintained and any equity infusion above 30% is treated as normative loan, which certainly cannot be considered under the Companies Act.

(vii) That, the Appellant, pursuant to directions of CERC, prepared the segregated statements as per the Guidance Notes and Principles stipulated by the Institute of Chartered Accountants (in short "ICA"), Guidance Note on Combined and Carve-out Financial Statements (Sr. No.20-22) and Accounting for Branches (Sr. No.6) which provides for preparation of balance sheets in cases where different branches / departments of a company are required to be shown in a segregated manner.

(viii) That, the Appellant pleaded that it is a common practice for companies to show similar inter-divisional balances under different nomenclatures, such as "Inter-unit accounts" where funds of one entity are pooled and distributed amongst different branches/businesses, in support of which a balance sheet of NTPC Limited was placed before the Hon'ble APTEL which had similar accounting procedure. Since there was no accounting standard prescribed for carved financials within a consolidated business, the auditors of the Appellant used best possible proportion ratio / estimate based on the identified actual transmission assets (assets were identified and after that common facilities have been used for segregation of Balance Sheet items on estimate basis), also, as no specific loans were taken at that point of time by the Appellant, assets were placed jointly and only memoranda records were maintained for this purpose by the appellant.

(ix) That, in this regard, Note No. 3 of Schedule 15 (Part B) of the segregated balance sheets was placed on record by the Appellant wherein the aforesaid position was noted. Further, the appellant's auditors in the aforesaid segregated balance sheet(s) had also noted that the Accounting Standard 17, which is generally utilised for segment reporting, could not be used since the business of the Appellant company was recognised as a private power producer, where generation and transmission was not being undertaken by it as separate businesses, further since the Appellant only had one geographical reportable segment, i.e., operations within India, therefore, the requirements under AS-17 for segment reporting were not satisfied.

33. In view of the above observations, the Hon'ble APTEL in its judgment dated 15.12.2023 has held as follows:

"a. We are inclined to accept the submission of the Appellant that the Central Commission while passing the Impugned Orders has failed to note that the balance sheets prepared by it for its licenced transmission business could only be prepared prospectively since prior to the grant of transmission licence, it was operating its generation and transmission business in a consolidated manner, however, the balance sheets prior to grant of transmission licence reflected Rs.321.87 Crore as "Inter-Division Balance" since the entire funding of the Project has been done through appellant's own funds and prior to grant of Transmission Licence, appellant could not have segregated its accounts between generation and transmission.

b. From the balance sheets submitted by the Appellant for periods after the grant of transmission licence, it can be noted that these have duly reflected the actual debt-equity segregation of 80:20 on the basis of which the Project was funded, CERC has failed to note the basic principle of accounting, i.e., there can be no asset creation without liability since the account statements of a company are required to always be balanced, while CERC has taken into account the value of GFA and also allowed depreciation on such GFA, it has returned the finding that there was no equity in the transmission business of JPL, there cannot be a situation where certain entries (for the asset in question) are considered on asset side but do not appear on liability side and vice-versa.

c. The Appellant argued that at any point of time, the resources of the business entity must be equal to the claims of those who have financed these resources, the proprietors and outsiders provide the resources of the business, the claim of the proprietors is called capital and that of the outsides is known as liabilities, also, each element of the equation is the part of balance sheet, which states the financial position of the business on a particular date.

d. *It cannot be disputed that the Asset side of the balance sheet is the list of assets, which the business entity owns, the liabilities side of the balance sheet is the list of owner's claims and outsider's claims, i.e., what the business entity owes, thus, the equality of the assets side and the liabilities side of the balance sheet is an undeniable fact and this justifies the name of accounting equation as balance sheet equation also.*

e. *Also submitted that in terms of Regulation 12(1) of the CERC 2009 Tariff Regulations and Regulation 19 of the 2014 Tariff Regulations, in the event the project is funded with equity above 30% of the capital cost, the excess equity is to be treated as normative loan, further, as per Regulation 16(2) of the 2009 Tariff Regulations and Regulation 26 of the 2014 Tariff Regulations, the repayment of a normative loan for the period 2009-14 is to be considered limited to depreciation allowed for the year and consequently, the remaining amount of debt should have been treated as normative loan availed by the Appellant.*

f. *We agree with the contention of the Appellant that the Appellant is entitled to deploy the fund for the project cost including free reserves and retained earnings and swap the actual loan taken from lenders, also, in the instant case was entitled to service the Project Cost from shareholder contributions which in essence amounts to equity, such deployment of fund necessarily has to be recognized for purpose of tariff inter-alia the asset used in the transmission business has, in the present case, been funded by the shareholders, hence, the normative regulated return on equity should have been allowed in tariff.*

g. *This Tribunal vide judgment dated 27.08.2007 passed in Appeal No. 13 of 2007 titled Municipal Corporation of Greater Mumbai vs. MERC, has held that interest on internal funds should also be given in addition to return on equity on internal funds/reserves which has been treated as notional equity of the utility.*

h. *Further, this Tribunal vide judgment dated 10.12.2008 passed in Appeal No. 151–152 of 2007 titled NTPC Ltd. vs. CERC and judgment dated 16.03.2009 passed in Appeal No. 133 of 2008 titled NTPC Ltd. vs. Central Electricity Regulatory Commission & Ors. and batch matters, has held that if a utility employs its own funds over and above equity there is no reason why it should not earn interest thereon."*

34. In view of the foregoing facts, the Hon'ble APTEL held that the claim of the Appellant shall be in accordance to Debt: Equity ratio of 80:20 for return on equity and interest on loan, considering the GFA of the transmission asset.

35. Accordingly, based on information available on record, the Commission determines the Debt Equity ratio as 80:20 as on 1.4.2014.

36. The Commission is of the view that impact of Hon'ble APTEL judgment vide order dated 15.12.2023 on 'Annual Fixed Charges' for 2009-14 tariff control period shall be issued through a separate order, however, impact of Hon'ble APTEL judgment dated 15.12.2023 on Debt Equity ratio and computation of Interest on

Loan i.e. IOL used for reference purpose in the instant order has been shown at Annexure-I.

Debt Equity Ratio

37. In view of the above, the Debt-Equity considered for the purpose of computation of tariff for the 2014-19 tariff period is as follows:

	As on 1.4.2014 (in ₹ lakh)	(in %)	ACE during 2014-19 (in ₹ lakh)	(in %)	As on 31.3.2019 (in ₹ lakh)	(in %)
Debt	19382.74	80.00	511.85	80:00	19894.59	80.00
Equity	4845.69	20.00	127.96	20.00	4973.65	20.00
Total	**24228.43***	**100.00**	**639.81**	**100.00**	**24868.24**	**100.00**

Opening Capital cost as on 1.4.2014

Depreciation

38. The depreciation has been allowed as per the methodology provided in Regulation 27 of the 2014 Tariff Regulations. Depreciation has been allowed considering capital expenditure as on 1.4.2014 and approved ACE during the 2014-19 tariff period. The Gross Block during the 2014-19 tariff period has been depreciated at weighted average rate of depreciation (WAROD). WAROD at Annexure-II has been worked out after considering the depreciation rates of assets as prescribed in the 2014 Tariff Regulations and trued-up depreciation allowed for the transmission assets for the 2014-19 tariff period are as follows:

(₹ in lakh)

		2014-15	2015-16	2016-17	2017-18	2018-19
A	Opening Gross Block	24228.43	24228.43	24868.24	24868.24	24868.24
B	ACE	0.00	639.81	0.00	0.00	0.00
C	Closing Gross Block (A+B)	24228.43	24868.24	24868.24	24868.24	24868.24
D	Average Gross Block (A+C)/2	24228.43	24548.34	24868.24	24868.24	24868.24
E	Free hold Land	8.00	8.00	8.00	8.00	8.00
F	Average Gross Block (90% depreciable assets)	24228.43	24548.34	24868.24	24868.24	24868.24
G	Depreciable value (F*90%)	21798.39	22086.30	22374.22	22374.22	22374.22

		2014-15	2015-16	2016-17	2017-18	2018-19
H	Weighted Average Rate of Depreciation (WAROD) (in %)	5.246	5.247	5.247	5.247	5.247
I	Elapsed useful life at the beginning of the year (Year)	5	6	7	8	9
I	Balance useful life at the beginning of the year (Year)	29	28	27	26	25
J	**Depreciation during the year** (D*H)	**1271.05**	**1287.94**	**1304.84**	**1304.84**	**1304.84**
L	Aggregate Cumulative Depreciation at the end of the year	4951.87	6239.81	7544.65	8849.49	10154.33
M	Remaining Aggregate Depreciable Value at the end of the year(G-L)	16846.52	15846.49	14829.57	13524.73	12219.89

39. Accordingly, depreciation approved *vide* order dated 28.1.2016 in Petition No. 313/TT/2014, claimed by the Petitioner in the instant petition and trued up depreciation in respect of the transmission asset is as follows:

(₹ in lakh)

Depreciation	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Depreciation approved vide order dated 15.12.2017 in Petition No. 313/TT/2014	1271.05	1271.05	1271.05	1271.05	1271.05
Depreciation claimed by the Petitioner in the instant petition	1271.64	1288.43	1305.23	1305.23	1305.23
Depreciation allowed in the instant order	**1271.05**	**1287.94**	**1304.84**	**1304.84**	**1304.84**

Interest on Loan ("IoL")

40. The Petitioner has claimed the weighted average rate of IoL based on its actual loan portfolio and rate of interest as on COD. As per the information submitted by the Petitioner *vide* affidavit dated 25.9.2012, the instant transmission project was financed through various financial institutions and as per the tariff form 13 submitted by the petitioner in petition 135/TT/2012 filed for the determination of tariff for the period from date of award of transmission license i.e. 9.5.2011 till 31.3.2014, weighted average rate of interest (WAROI) of actual loan was 10.09%

before the loan was repaid. Since, the Petitioner has repaid the actual loan on or before date of issuance of transmission license to the Petitioner, IoL has been computed on the basis the last available weighted average rate of interest as per Clause 5 of regulation 26 of 2014 tariff regulation.

41. The trued-up IoL allowed in respect of the transmission assets is as follows:

(₹ in lakh)

Particulars	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Gross Normative Loan	19382.74	19382.74	19894.59	19894.59	19894.59
Cumulative Repayment up to Previous Year	3680.82	4951.87	6239.81	7544.65	8849.49
Net Loan-Opening	15701.92*	14430.87	13654.78	12349.94	11045.10
Addition due to Additional Capitalisation	0.00	511.85	0.00	0.00	0.00
Repayment during the year	1271.05	1287.94	1304.84	1304.84	1304.84
Adjustment of cumulative repayment pertaining to the decapitalised asset	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	14430.87	13654.78	12349.94	11045.10	9740.26
Average Loan	15066.40	14042.83	13002.36	11697.52	10392.68
Weighted Average Rate of Interest on Loan	10.09%	10.09%	10.09%	10.09%	10.09%
Interest on Loan	**1512.67**	**1409.90**	**1305.44**	**1174.43**	**1043.43**

Opening balance as per Annexure-I

Return on Equity (“RoE”)

42. The Petitioner has claimed RoE for 2014-19 tariff period after grossing up the RoE @15.50% with Effective Tax rates (based on MAT rates) for each year as per the above said Regulation. As discussed at para 35 to 36 above, RoE is trued up on the basis of Debt Equity ratio of 80:20 as on 01.04.2014 and MAT rates applicable in the respective years and is allowed for the transmission assets as follows:

(₹ in lakh)

Particulars	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Net Opening Equity	4845.69	4845.69	4973.65	4973.65	4973.65
Increase in Equity due to addition during the year	0.00	127.96	0.00	0.00	0.00
Decrease due to de-capitalization during the year	0.00	0.00	0.00	0.00	0.00

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Increase due to discharge during the year/period	0.00	0.00	0.00	0.00	0.00
Closing Equity	4845.69	4973.65	4973.65	4973.65	4973.65
Average Equity	4845.69	4909.67	4973.65	4973.65	4973.65
Return on Equity (Base Rate) (%)	15.500%	15.500%	15.500%	15.500%	15.500%
Tax Rate applicable (%)	20.961%	21.342%	21.342%	21.342%	21.549%
Applicable ROE Rate (%)	19.610%	19.705%	19.705%	19.705%	19.758%
Return on Equity for the year	**950.24**	**967.45**	**980.06**	**980.06**	**982.69**

Operation & Maintenance Expenses ("O&M Expenses")

43. The Commission vide order dated 15.12.2017 in petition No 313/TT/2014 has allowed the following O&M Expenses:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Transmission Line (400 kV DCDS Tamnar-Raipur Circuit-1 & 2) (258.4 KM)					
Subtotal (A)	182.69	188.89	195.09	201.55	208.27
Number of bays (including bays at Raipur Kumhari Sub-station)					
400 kV	4	4	4	4	4
200 kV	2	2	2	2	2
Subtotal (B)	325.62	336.42	347.60	359.14	371.04
Total O&M Charges allowed (A + B)	508.31	525.31	542.69	560.69	579.31

44. The Petitioner in the instant true-up Petition has also claimed the same O&M expenses and the same is as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M expenses claimed	508.31	525.31	542.69	560.69	579.31

45. We have considered the submissions of the Petitioner. The O&M Expenses approved under Regulation 29(3) of the 2014 Tariff Regulations are as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Transmission Line (400 kV DCDS Tamnar-Raipur Circuit-1 & 2) (258.4 KM)					
Normative O&M per KM	0.707	0.731	0.755	0.78	0.806
Subtotal (A)	182.69	188.89	195.09	201.55	208.27
Number of bays (including bays at Raipur Kumhari Sub-station)					
400 kV	4	4	4	4	4
200 kV	2	2	2	2	2
Normative O&M charges for Sub Stations					

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
400 kV lakh/Bay	60.3	62.3	64.37	66.51	68.71
220 kV lakh/Bay	42.21	43.61	45.06	46.55	48.1
Subtotal (B)	325.62	336.42	347.6	359.14	371.04
Total O&M Charges allowed (A + B)	508.31	525.31	542.69	560.69	579.31

46. The details of O&M Expenses approved *vide* order dated 15.12.2017 in Petition No. 313/TT/2014, as claimed by the Petitioner in the instant petition and trued up in the instant order is as follows:

(₹ in lakh)

O&M Expenses	2014-15	2015-16	2016-17	2017-18	2018-19
O&M approved *vide* order dated 15.12.2017 in Petition No. 313/TT/2014	508.31	525.31	542.69	560.69	579.31
O&M claimed by the Petitioner in the instant petition	508.31	525.31	542.69	560.69	579.31
O&M allowed in the instant order	**508.31**	**525.31**	**542.69**	**560.69**	**579.31**

Interest on Working Capital ("IWC")

47. The Petitioner has claimed IWC in terms of Regulation 28 of the 2014 Tariff Regulations. The components of the working capital and the Petitioner's entitlement to interest thereon are discussed as follows:

i. **Working Capital for Maintenance spares**:
Maintenance spares have been worked out based on 15% of Operation and Maintenance Expenses specified in Regulation 28.

ii. **Working Capital for O & M Expenses**:
O&M Expenses have been considered for one month of the allowed O&M Expenses.

iii. **Working Capital for Receivables**:
The receivables have been worked out on the basis of 2 months of annual transmission charges as worked out above.

iv. **Rate of interest on working capital**:

Rate of interest on working capital is considered on normative basis in accordance with Clause (3) of Regulation 28 of the 2014 Tariff Regulations.

48. IWC worked out as per the methodology provided in Regulation 28 of the 2014 Tariff Regulations and allowed in respect of the instant transmission asset is as follows:

(₹ in lakh)

	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
A	Working Capital for O&M Expenses (Equivalent to annualized O&M Expenses for 1 month)	42.36	43.78	45.22	46.72	48.28
B	Working Capital for Maintenance Spares (Equivalent to 15% of O&M Expenses)	76.25	78.80	81.40	84.10	86.90
C	Working Capital for Receivables (Equivalent to 2 months of annual transmission charges)	726.05	717.33	707.61	688.44	669.82
D	**Total Working Capital (A+B+C)**	844.66	839.90	834.24	819.26	805.00
E	Rate of Interest (in %)	13.50%	13.50%	13.50%	13.50%	13.50%
F	**Interest on Working Capital (DxE)**	**114.03**	**113.39**	**112.62**	**110.60**	**108.67**

49. Accordingly, the IWC approved *vide* order dated 15.12.2017 in Petition No. 313/TT/2014, IWC claimed by the Petitioner in the instant petition and trued up IWC in respect of the transmission asset is as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed earlier *vide* order dated 15.12.2017 in Petition No. 313/TT/2014	57.34	58.28	59.24	60.23	61.26
As claimed by the Petitioner in the instant petition	115.95	115.31	114.54	112.50	110.57
Allowed after true-up in this order	**114.03**	**113.39**	**112.62**	**110.60**	**108.67**

<u>Approved Annual Fixed Charges for the 2014-19 Tariff Period</u>

50. The trued-up annual fixed charges allowed for the transmission asset for the 2014-19 tariff period are as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	1271.05	1287.94	1304.84	1304.84	1304.84
Interest on Loan	1512.67	1409.90	1305.44	1174.43	1043.43
Return on Equity	950.24	967.45	980.06	980.06	982.69

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	508.31	525.31	542.69	560.69	579.31
Interest on Working Capital	114.03	113.39	112.62	110.60	108.67
Total	**4356.30**	**4303.99**	**4245.65**	**4130.62**	**4018.94**

51. Accordingly, the details of Annual Fixed Charges approved earlier, claimed by the Petitioner in the instant petition and approved after truing up in the instant order are as follows:

(₹ in lakh)

Annual Fixed Charges	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed earlier *vide* order dated 15.12.2017 in Petition No. 313/TT/2014	1836.70	1854.64	1872.98	1891.97	1911.62
As claimed by the Petitioner in the instant petition	4592.23	4436.19	4377.22	4267.56	4138.13
Allowed in the instant order	**4356.30**	**4303.99**	**4245.65**	**4130.62**	**4018.94**

52. The difference between the Annual fixed charges recovered by the Petitioner in terms of order dated 15.12.2017 in Petition No. 313/TT/2014 and the Annual fixed charges determined by this order, shall be adjusted in terms of the provisions of Regulation 8(13) of the 2014 Tariff Regulations.

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

53. The details of the transmission charges claimed by the Petitioner in respect of the Combined Asset for the 2019-24 tariff period are as follows:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	1351.00	1397.00	612.00	612.00	612.00
Interest on Loan	902.00	834.00	733.00	671.00	609.00
Return on Equity	1118.00	1151.00	1151.00	1151.00	1151.00
Operation and Maintenance	828.00	724.00	749.00	776.00	802.00
Interest on Working Capital	88.00	78.00	66.00	66.00	67.00
Total	**4287.00**	**4184.00**	**3311.00**	**3276.00**	**3241.00**

54. The details of the IWC claimed by the Petitioner in respect of the Combined Asset for the 2019-24 tariff period are as follows:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M expenses	69.00	60.00	62.00	65.00	67.00
Maintenance Spares	124.00	109.00	112.00	116.00	120.00
Receivables	536.00	523.00	414.00	410.00	405.00
Total	**729.00**	**692.00**	**588.00**	**591.00**	**592.00**
Rate of Interest (%)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	**87.84**	**77.85**	**66.15**	**66.49**	**66.60**

Effective Date of Commercial Operation (“E-COD”)

55. The Petitioner has claimed E-COD of 16.8.2008 for the project as a whole. Accordingly, the lapsed life of the project as a whole, works out as 10 (ten) years as on 1.4.2019 (i.e., the number of completed years as on 1.4.2019 from E-COD).

Weighted Average Life (WAL)

56. The life as defined in Regulation 33 of the 2019 Tariff Regulations has been considered for determination of Weighted Average Life.

57. The Combined Asset may have multiple elements such as land, building, transmission line, Sub-station and PLCC and each element may have different span of life. Therefore, the concept of Weighted Average Life (WAL) has been used as the useful life of the project as a whole. WAL has been determined based on the admitted capital cost of individual elements as on 31.3.2019 and their respective life as stipulated in the 2019 Tariff Regulations. The element-wise life as defined in the 2009 Tariff Regulations prevailing at the time of actual COD of individual assets has been ignored for this purpose. The life as defined in the 2019 Tariff Regulations has been considered for determination of WAL. Accordingly, WAL of the Combined Asset has been worked out as follows:

Admitted Capital Cost as on 31.3.2019				
Particulars	**Combined Asset Cost (₹ in lakh) (1)**	**Life as per 2019 Regulation (Years) (2)**	**Weighted Cost (3) = (1)x(2)**	**Weighted Average Life of Asset (in years) (4) = (3)/ (1)**
Freehold Land	7.79	0	0.00	**33.05 years (rounded off to 33 years)**
Leasehold land	0.00	25	0.00	
Building & other civil works	401.49	25	10037.25	
Transmission Line	20016.42	35	700574.70	
Sub-Station Equipment	4442.33	25	111058.25	
PLCC	0.00	15	0.00	
IT equipment and software	0.00	7	0.00	
Total	**24868.24**		**821670.20**	

58. The WAL as on 1.4.2019 as determined above is applicable prospectively (i.e., for the 2019-24 tariff period onwards) and no retrospective adjustment of depreciation in previous tariff period is required to be done. As discussed in the preceding paragraphs, the Effective COD of the assets is 16.8.2008 and the lapsed life of the project as a whole, works out as Ten (10) years as on 1.4.2019 (i.e., the number of completed years as on 1.4.2019 from Effective COD). Accordingly, WAL has been used to determine the remaining useful life as on 31.3.2019 to be 23 years.

Capital Cost

59. Regulations 19 of the 2019 Tariff Regulations provide 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 up to the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;
(k) Capital expenditure on account of biomass handling equipment and facilities, for co-firing;
(l) Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;
(m) Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project;
(n) Expenditure on account of change in law and force majeure events; and
(o) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.

(3) The Capital cost of an existing project shall include the following:
(a) Capital cost admitted by the Commission prior to 1.4.2019 duly trued up by excluding liability, if any, as on 1.4.2019;
(b) Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;
(c) Capital expenditure on account of 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."

60. The capital cost has been dealt in line with Regulation 19(3) of the 2019 Tariff Regulations. The element-wise capital cost (i.e., land, building, transmission line, Sub-station and PLCC) as admitted by the Commission as on 31.3.2019 in respect of the transmission assets are clubbed together and has been considered as capital cost of Combined Asset as on 1.4.2019 which is as follows:

(₹ in lakh)

Element	**Capital Cost for Combined Asset as on 31.3.2019**
Free hold land	8.00
Building	401.49
Transmission Line	20016.42
Sub-station Equipment	4442.33
PLCC	0.00
Leasehold land	0.00
IT equipment and software	0.00
Total	**24868.24**

61. The Petitioner has submitted that it had identified fixed assets of the total gross value of ₹32186.47 lakh i.e., ₹321.87 Crore as on 9.5.2011 that have been employed for dedicated use in the Licensed Transmission Business since the COD of the transmission system and in this context, filed Petition No.105/2010 for grant of transmission license. The said Transmission License was granted to the Petitioner by the Commission vide order dated 9.5.2011 with respect to the Licensed Transmission Business.

62. The Commission *vide* order dated 30.4.2019 in Petition No. 262/MP/2017, amended the already granted transmission license and thereby allowed to include the disallowed assets of ₹3930.83 lakh, which were inadvertently not included by the Petitioner at the time of grant of original licence.

63. The Commission *vide* order dated 30.4.2019 in Petition No. 262/MP/2017 has held as follows:

> *"31. The transmission tariff of the left-out equipment i.e., 2 nos. 400 kV Line bays, 2 nos. 400 kV Tie bays and 2 nos. 50 MVAr non-switchable Reactors may be claimed by the Petitioner as per the extant CERC Tariff Regulations and the tariff would be granted from the date of issue of amended license as per order in the instant petition, after adjustment of depreciation. Further, the amendment of the license would be subject to the outcome of the Appeal No. 210 of 2016 in APTEL filed by CSPDCL."*

64. In view of the above, the capital cost of ₹3930.83 lakh in respect of additional transmission asset covered in the amended transmission license dated 30.4.2019 is being included in gross fixed asset w.e.f. 30.4.2019. However, inclusion of ₹3930.83 lakh in gross fixed assets shall be subject to outcome of the Appeal No. 210 of 2016 in APTEL filed by CSPDCL.

65. The Petitioner has not claimed any ACE in 2019-24 tariff period.

Capital Cost for the 2019-24 tariff period

66. The Petitioner has submitted that it had inadvertently failed to include some assets in the transmission license (2 numbers 400 kV line bays, 2 numbers 400 kV tie bays and 2 numbers 50 MVAr non-switchable Reactors at Raipur sub-station of PGCIL) that are material ingredients of the transmission system since beginning. Since these were not included in the transmission License granted by the Commission vide its order dated 9.5.2011 in Petition No. 105 of 2010, hence, the Commission did not consider the cost of the above inadvertently left out assets vide order dated 18.12.2015 in Petition No. 135/TT/2012, thereby reducing the total Gross Asset by ₹3931 lakh.

67. The Petitioner filed Petition No. 262/MP/2017 seeking an amendment in the transmission license granted by the Commission vide order dated 9.5.2011. The Commission vide order dated 30.4.2019 in Petition No. 262/MP/2017, amended the already granted transmission license and allowed inclusion of the assets, the cost of which had been computed by the Commission as ₹39.31 Crore vide its order dated 18.12.2015 in Petition No.135/TT/2012. The relevant portion of the order is extracted below:

> *"30. It is observed that 2 nos. 400 kV Line bays, 2 nos. 400 kV Tie bays and 2 nos. 50 MVAr non-switchable Reactors at Raipur (PGCIL) sub-station associated with 400 kV JPL - Raipur D/C line are inherent part of the said transmission line, which has been declared as an ISTS line and granted transmission license in Petition No. 105 of 2010 vide order dated 9.5.2011. Therefore, the transmission license already granted to the Petitioner shall be amended to include 2 nos. 400 kV Line bays, 2 nos. 400 kV Tie bays and 2 nos. 50 MVAr non-switchable Reactors at Raipur (PGCIL) sub-station w.e.f. order in the instant petition.*
>
> *31. The transmission tariff of the left-out equipment i.e., 2 nos. 400 kV Line bays, 2 nos. 400 kV Tie bays and 2 nos. 50 MVAr non-switchable Reactors may be claimed by the Petitioner as per the extant CERC Tariff Regulations and the tariff would be granted from the date of issue of amended license as per order in the instant petition, after adjustment of depreciation. Further, the amendment of the license would be subject to the outcome of the Appeal No. 210 of 2016 in APTEL filed by CSPDCL."*

68. In view of the above, the Commission admits the inclusion of ₹1672.81(i.e. ₹3930.83 - ₹2258.02) lakh after adjustment of cumulative depreciation of ₹2258.02 lakh on account of left out asset w.e.f. 30.4.2019.

69. Accordingly, the capital cost of the combined transmission asset considered for the 2019-24 tariff period are as follows:

(₹ in lakh)

Asset	Capital Cost allowed as on 1.4.2019	ACE					Capital Cost allowed as on 31.3.2024
		2019-20	2020-21	2021-22	2022-23	2023-24	
Combined Asset	**24868.24**	1672.81	0.00	0.00	0.00	0.00	**26541.05**

Debt-Equity Ratio

70. 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."

71. Debt Equity ratio has been determined as 80:20 as on 31.3.2019. The debt-equity considered for the purpose of computation of tariff for the 2019-24 tariff period is allowed as per Regulation 18(3) of the 2019 Tariff Regulations. The debt-equity considered for the purpose of computation of tariff for the 2019-24 tariff period is as follows:

(₹ in lakh)

Particulars	**Capital Cost (as on 1.4.2019) (₹ in lakh)**	**(in %)**	**ACE 2019-24**	**(in %)**	**Capital Cost (as on 31.3.2024) (₹ in lakh)**	**(in %)**
Debt	19894.59	80.00	1338.24	80.00	21232.84	80.00
Equity	4973.65	20.00	334.56	20.00	5308.21	20.00
Total	**24868.24**	**100.00**	**1672.81**	**100.00**	**26541.05**	**100.00**

Depreciation

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

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

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

(2) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. In case of multiple units of a generating station or multiple elements of a transmission system, weighted average life for the generating station of the transmission system shall be applied. Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

73. Depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019, accumulated depreciation up to 31.3.2019 and allowing the left out asset of ₹1672.81 (₹3930.83-₹2258.02) lakh after adjustment of cumulative depreciation. WAROD at Annexure-III has been worked out as per the rates of depreciation specified in the 2019 Tariff Regulations. The Combined Asset has already completed 12 years of life as on 31.3.2021. Therefore, the remaining depreciable value has been spread across the balance useful life in accordance with Regulation 33(5) of the 2019 Tariff Regulations. Depreciation allowed in respect of the Combined Asset is as follows:

(₹ in lakh)

	Particulars	**2019-20**	**2020-21**	**2021-22**	**2022-23**	**2023-24**
A	Opening Gross Block	24868.24	26541.05	26541.05	26541.05	26541.05
B	ACE	1672.81	0.00	0.00	0.00	0.00
C	Closing Gross Block (A+B)	26541.05	26541.05	26541.05	26541.05	26541.05

	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
D	Average Gross Block (A+C)/2	25704.64	26541.05	26541.05	26541.05	26541.05
E	Freehold Land	8.00	8.00	8.00	8.00	8.00
F	Average Gross Block (90% depreciable assets)	25704.64	26541.05	26541.05	26541.05	26541.05
G	Average Gross Block (100% depreciable assets)	0.00	0.00	0.00	0.00	0.00
H	Depreciable value (excluding IT equipment and software) (F*90%)	23126.98	23879.74	23879.74	23879.74	23879.74
I	Depreciable value of IT equipment and software (E*100%)	0.00	0.00	0.00	0.00	0.00
J	Total Depreciable Value (H+I)	23126.98	23879.74	23879.74	23879.74	23879.74
K	Weighted Average Rate of Depreciation (WAROD) (in %)	5.248%	5.249%	1.971%	1.971%	1.971%
L	Elapsed useful life at the beginning of the year (Year)	10.00	11.00	12.00	13.00	14.00
M	Balance useful life at the beginning of the year (Year)	23.00	22.00	21.00	20.00	19.00
N	**Depreciation during the year** (D*K)	**1348.99**	**1393.16**	**523.01**	**523.01**	**523.01**
O	Aggregate Cumulative Depreciation at the end of the year	11503.32	12896.48	13419.49	13942.50	14465.52
P	Remaining Aggregate Depreciable Value at the end of the year(J-O)	11623.65	10983.26	10460.25	9937.24	9414.22

Interest on Loan (IoL)

74. 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.

(5 a) 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".

75. The Petitioner has claimed the weighted average rate of IoL based on its actual loan portfolio and rate of interest as on COD. As per the information submitted by the Petitioner *vide* affidavit dated 25.9.2012, the instant transmission project was financed through various financial institutions and as per the tariff form 13 submitted by the petitioner in petition 135/TT/2012 filed for the determination of tariff for the period from date of award of transmission license i.e. 9.5.2011 till 31.3.2014, weighted average rate of interest (WAROI) of actual loan was 10.09% before the loan was repaid. Since, the Petitioner has repaid the actual loan on or before date of issuance of transmission license to the Petitioner, IoL has been computed on the basis the last available weighted average rate of interest as per Clause 5 of regulation 32 of 2019 tariff regulation. IoL allowed in respect of the Combined Asset is follows:

(₹ in lakh)

Particulars		2019-20	2020-21	2021-22	2022-23	2023-24
A	Gross Normative Loan	19894.59	21232.84	21232.84	21232.84	21232.84
B	Cumulative Repayments up to Previous Year	10154.33	11503.32	12896.48	13419.49	13942.50
C	Net Loan-Opening (A-B)	9740.26	9729.51	8336.36	7813.42	7290.33
D	Additions	1338.24	0.00	0.00	0.00	0.00
E	Repayment during the year	1348.99	1393.16	523.01	523.01	523.01
F	Net Loan-Closing (C+D-E)	9729.51	8336.36	7813.34	7290.33	6767.32
G	Average Loan (A+F)/2	9734.89	9032.93	8074.85	7551.84	7028.83
H	Weighted Average Rate of Interest on Loan (in %)	10.09%	10.09%	10.09%	10.09%	10.09%
I	**Interest on Loan (GxH)**	982.25	911.42	814.75	761.98	709.21

Return on Equity (RoE)

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

> ***"30. Return on Equity**: (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with Regulation 18 of these regulations.*
>
> *(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating station, transmission system including communication system and run-of-river hydro generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run-of-river generating station with pondage:*
>
> *Provided that return on equity in respect of additional capitalization after cutoff date beyond the original scope, excluding additional capitalization on 7 account of emission control system, shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission system or in the absence of actual loan portfolio of the generating station or the transmission system, the weighted average rate of interest of the generating company or the transmission licensee, as the case may be, as a whole shall be considered, subject to ceiling of 14%.*
>
> *Provided further that:*
>
> *i. In case of a new project, the rate of return on equity shall be reduced by 1.00% for such period as may be decided by the Commission, if the generating station or transmission system is found to be declared under commercial operation without commissioning of any of the Restricted Governor Mode Operation (RGMO) or Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system based on the report submitted by the respective RLDC;*
>
> *ii. in case of existing generating station, as and when any of the requirements under (i) above of this Regulation are found lacking based on the report submitted by the concerned RLDC, rate of return on equity shall be reduced by 1.00% for the period for which the deficiency continues;*
>
> *iii. in case of a thermal generating station, with effect from 1.4.2020:*
>
> *a) rate of return on equity shall be reduced by 0.25% in case of failure to*

achieve the ramp rate of 1% per minute;

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

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

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

Regulation 31 of the 2019 Tariff Regulations provides as under: -

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

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

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

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

Illustration-

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

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

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

(a) Estimated Gross Income from generation or transmission business for FY 2019-20 is Rs 1,000 crore;
(b) Estimated Advance Tax for the year on above is Rs 240 crore;

(c) Effective Tax Rate for the year 2019-20 = Rs 240 Crore/Rs1000 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."

77. The Petitioner has submitted that MAT rate is applicable to the Petitioner's company. We have considered the submissions of the Petitioner. The MAT rate applicable in 2019-20 has been considered for the purpose of RoE, which shall be trued-up with actual tax rate in accordance with Regulation 31(3) of the 2019 Tariff Regulations. The RoE allowed under Regulation 30 of the 2019 Tariff Regulations is as follows:

(₹ in lakh)

	Particulars	**2019-20**	**2020-21**	**2021-22**	**2022-23**	**2023-24**
A	Opening Equity	4973.65	5308.21	5308.21	5308.21	5308.21
B	Addition due to ACE	334.56	0.00	0.00	0.00	0.00
C	Closing Equity (A+B)	5308.21	5308.21	5308.21	5308.21	5308.21
D	Average Equity (A+C)/2	5140.93	5308.21	5308.21	5308.21	5308.21
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	Tax Rate applicable (in %)	17.472	17.472	17.472	17.472	17.472
G	Applicable RoE Rate (in %)	18.782	18.782	18.782	18.782	18.782
H	**Return on Equity for the year (DxG)**	965.57	996.99	996.99	996.99	996.99

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

78. The Petitioner has submitted that as per the transmission license granted by the Hon'ble Commission vide order dated 9.5.2011, the transmission system in respect of which this petition is being filed, comprises of 258.4 kms 400 kV D/C JPL

Tamnar-PGCIL, Raipur Transmission Line and 400/220/33 KV substations which includes 4 numbers 400 KV bays (2 numbers line bays and 2 numbers transformer bays) and 2 numbers 220 KV transformer bays.

79. The assets which were inadvertently missed by JPL include 2 X 400 kV line bays, 2 X 400 kV tie bays and 2 X 50 MVAR non-switchable reactors at Raipur sub-station of PGCIL and the same was included in the license in the amendment vide order dated 30.04.2019 in Petition No. 262/MP/2017.

80. JPL had executed a Memorandum of Understanding (hereinafter referred to as 'MoU') dated 16.11.2018, with Power Grid for O&M of terminal equipment in the switchyard of Power Grid at Raipur substation, 400 kV Raipur SS for 6 No of 400 kV bays (2 Line bays, 2 Tie bays and 2 50 MVAr non-switchable Reactors at Raipur PGCIL substation).

81. The Petitioner has claimed the following O&M expenses for 2019-24 tariff Period and the same is as follows:

(₹ in lakh)

Particulars	**2019-20**	**2020-21**	**2021-22**	**2022-23**	**2023-24**
Transmission line: 400 kV D/C Tamnar-Raipur Circuit-1 & 2) (258.4 KM)					
O&M claimed towards tr. line (A)	**227.65**	**235.66**	**243.93**	**252.46**	**261.24**
Substation					
Number of bays (including bays at Raipur Kumhari Sub-station)					
400 kV	10	6	6	6	6
220 kV	2	2	2	2	2
ICTs	2X315 MVA	2X315 MVA	2X315 MVA	2X315 MVA	2X315 MVA
Total O&M of Substation bays and Transformers (B)	**592.06**	**480.01**	**496.86**	**514.62**	**532.07**
Total O&M (A+B)	**828.26**	**724.23**	**749.34**	**775.63**	**801.87**

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

"35. Operation and Maintenance Expenses:

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

Particulars	***2019-20***	***2020-21***	***2021-22***	***2022-23***	***2023-24***
Norms for sub-station Bays (Rs Lakh per bay)					
765 kV	*45.01*	*46.60*	*48.23*	*49.93*	*51.68*
400 kV	*32.15*	*33.28*	*34.45*	*35.66*	*36.91*
220 kV	*22.51*	*23.30*	*24.12*	*24.96*	*25.84*
132 kV and below	*16.08*	*16.64*	*17.23*	*17.83*	*18.46*
Norms for Transformers (Rs Lakh per MVA)					
765 kV	*0.491*	*0.508*	*0.526*	*0.545*	*0.564*
400 kV	*0.358*	*0.371*	*0.384*	*0.398*	*0.411*
220 kV	*0.245*	*0.254*	*0.263*	*0.272*	*0.282*
132 kV and below	*0.245*	*0.254*	*0.263*	*0.272*	*0.282*
Norms for AC and HVDC lines (Rs Lakh per km)					
Single Circuit (Bundled Conductor with six or more sub-conductors)	*0.881*	*0.912*	*0.944*	*0.977*	*1.011*
Single Circuit (Bundled conductor with four sub-conductors)	*0.755*	*0.781*	*0.809*	*0.837*	*0.867*
Single Circuit (Twin & Triple Conductor)	*0.503*	*0.521*	*0.539*	*0.558*	*0.578*
Single Circuit (Single Conductor)	*0.252*	*0.260*	*0.270*	*0.279*	*0.289*
Double Circuit (Bundled conductor with four or more sub-conductors)	*1.322*	*1.368*	*1.416*	*1.466*	*1.517*
Double Circuit (Twin & Triple Conductor)	*0.881*	*0.912*	*0.944*	*0.977*	*1.011*
Double Circuit (Single Conductor)	*0.377*	*0.391*	*0.404*	*0.419*	*0.433*
Multi Circuit (Bundled Conductor with four or more sub-conductor)	*2.319*	*2.401*	*2.485*	*2.572*	*2.662*
Multi Circuit (Twin & Triple Conductor)	*1.544*	*1.598*	*1.654*	*1.713*	*1.773*
Norms for HVDC stations					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	*834*	*864*	*894*	*925*	*958*
Gazuwaka HVDC Back-to-Back station (Rs. 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 (2500 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±500 kV Talchar-Kolar HVDC bi-pole scheme (2000 MW);

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

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

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

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

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

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

(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."*

83. We have considered the submissions of the Petitioner. The Petitioner has claimed O&M expenses towards 2 no of Tie bays and O&M expenses towards 50 MVAR non-switchable Reactors for 2019-20. As per the norms specified under Regulation 35(3) of the 2019 tariff Regulations, O&M towards tie bays is not allowable. As regards non-switchable Reactors, there is no separate bays created for this and non-switchable reactors are installed on existing line bays only.

Therefore, we are not inclined to allow separate O&M for 50 MVAR non-switchable Reactors bays.

84. The O&M expenses claimed by the Petitioner are in accordance with Regulation 35(3) and Regulation 35(4) of the 2019 Tariff Regulations and the same is considered in respect of the transmission asset as follows:

(₹ in lakh)

Particulars	**2019-20**	**2020-21**	**2021-22**	**2022-23**	**2023-24**
Transmission Line (400 kV DC Tamnar-Raipur Circuit-1 & 2)					
Line Length (km)	258.40	258.40	258.40	258.40	258.40
O&M Norms (per km)	0.881	0.912	0.944	0.977	1.011
Sub-total (A)	**227.65**	**235.66**	**243.93**	**252.46**	**261.24**
Number of bays (including bays at Raipur Kumhari Sub-station)					
400 kV (nos.)	6	6	6	6	6
200 kV (nos.)	2	2	2	2	2
2 nos. 315 MVA ICTs (MVA)	630	630	630	630	630
O&M Norms for sub stations:					
400 kV (₹ lakh/Bay)	32.15	33.28	34.45	35.66	36.91
220 kV (₹ lakh/Bay)	22.51	23.3	24.12	24.96	28.84
400 kV Transformers (₹ lakh/MVA)	0.358	0.371	0.384	0.398	0.411
O&M charges for sub stations					
400 kV (₹ in lakh)	187.62	199.68	206.70	213.96	221.46
220 kV (₹ in lakh)	45.02	46.6	48.24	49.92	57.68
400 kV Transformers (₹ in lakh)	225.54	233.73	241.92	250.74	258.93
Subtotal (B)	**458.18**	**480.01**	**496.86**	**514.62**	**538.07**
Total O&M Charges allowed (A + B)	**685.83**	**715.67**	**740.79**	**767.08**	**799.31**

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

85. Regulations 34(1)(c), 34(3), 34(4) and 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;"*

86. The IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The Rate of IWC 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, 10.50% (SBI 1-year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points) for 2021-22, 10.50% (SBI 1-year MCLR applicable as on 1.4.2022 of 7.00% plus 350 basis points) for 2022-23 and 12.00%(SBI 1-year MCLR applicable as on 1.4.2023 of 8.50% plus 350 basis points) for 2023-24. The components of the working capital and interest thereon allowed for the instant assets are as follows:

(₹ in lakh)

	Particulars	**2019-20**	**2020-21**	**2021-22**	**2022-23**	**2023-24**
A	Working Capital for O&M Expenses (Equivalent to annualized O&M Expenses for 1 month)	57.15	59.64	61.73	63.92	66.61
B	Working Capital for Maintenance Spares (Equivalent to 15% of O&M Expenses)	102.87	107.35	111.12	115.06	119.90
C	Working Capital for Receivables (Equivalent	499.44	504.59	386.42	383.19	380.73

	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	to 45 days of annual transmission charges)					
D	**Total Working Capital (A+B+C)**	659.47	671.58	559.27	562.17	567.23
E	Rate of Interest (in %)	12.05	11.25	10.50	10.50	12.00
F	**Interest on Working Capital (DxE)**	79.47	75.55	58.72	59.03	68.07

<u>Revenue gap on account of truing up (₹ 357.52 crs.)</u>

87. In view of revised AFC, the Petitioner has claimed revenue gap of ₹357.52 crore in the 2019-24.

88. MPPMCL vide affidavit dated 21.12.2021 has submitted that the Petitioner has claimed the revenue gap and the cumulative amount to be recovered on account of the revised AFC for the period 9.5.2011 till 31.3.2019 (including the carrying cost at the rate used for calculation of Interest on working capital for the respective year). The same may be disallowed as Revenue Gap claimed by Petitioner was also rejected by this Hon'ble Commission vide its order dated 15.12.2017 in Petition No. 313/ TT/ 2014. In response, the Petitioner has submitted that the revenue gap has occurred due to a series of orders passed by the Commission, which have not taken into consideration the complete transmission asset(s) of the Petitioner. As such, only after the passing of the order dated 30.4.2019 in Petition No. 262/MP/2017, the Transmission License of the Petitioner was amended. Therefore, the revenue gap has accumulated over the years and is due and payable to the Petitioner in terms of adjustments under the extant regulatory framework. The same has been rightly claimed by the Petitioner and ought to be allowed.

89. We have considered the submissions of MPPMCL and Petitioner. The transmission charges have been allowed from time to time in respect of the licensed transmission asset w.e.f. 9.5.2011 and additional transmission asset as per amended license dated 30.4.2019. The Transmission charges have been

allowed under the 2014 and 2019 tariff Regulations. The truing up has also been carried out as per relevant provisions of the said Tariff Regulations after due prudence exercise. The difference between the original tariff and trued up tariff is to be claimed or refunded as the case may be as per relevant provisions of the tariff regulations and sharing regulations. Hence, we are not inclined to specifically go into the details of claim submitted by the Petitioner in this regard w.r.t. revenue gap on account of truing up.

Annual Fixed Charges for the 2019-24 Tariff Period

90. The various components of the annual fixed charges for the Combined Asset for the 2019-24 tariff period is summarized as follows:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	1348.99	1393.16	523.01	523.01	523.01
Interest on Loan	982.25	911.42	814.75	761.98	709.21
Return on Equity	965.57	996.99	996.99	996.99	996.99
O&M Expenses	685.83	715.67	740.79	767.08	799.31
Interest on Working Capital	79.47	75.55	58.72	59.03	68.07
Total	**4062.11**	**4092.79**	**3134.26**	**3108.09**	**3096.59**

Note: (1) All figures are on annualized basis. (2) All figures under each head have been rounded. The figure in total column in each year is also rounded. As such the sum of individual items may not be equal to the arithmetic total of the column.

Incentives on System Availability

91. The Petitioner has claimed incentives on system availability as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Availability based Incentive	55.27	46.53	46.54	52.56	35.05

92. MPPMCL has submitted that Petitioner has claimed incentives for system availability however they have failed to produce any reliable data either from State Load Dispatch Centre or National Load Dispatch Centre. Therefore, the claims of Petitioner towards incentives for system availability for 2014-19 tariff period may be disallowed.

93. We have considered the submissions of MPPMCL and Petitioner. The incentive is payable for a calendar month along with the transmission charges as per Regulations 33 & 38 of the 2014 Tariff Regulations and Regulations 46 & 51 of the 2019 Tariff Regulations on the basis of actual certification by concerned RLDC and billed as per the provisions of the 2010 Sharing Regulations, as amended from time to time. Hence, we do not find need to deliberate the issue of incentive claimed by the Petitioner in this order.

Filing Fee and Publication Expenses

94. 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.

95. 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.

Security Expenses

96. The Petitioner has submitted that Security Expenses have been projected for the 2019-24 period based on actual expenses of the financial year 2018-19. The O&M claimed towards security expenses is as follows:

(₹ in lakh)

Particulars	**2018-19**	**2019-20**	**2020-21**	**2021-22**	**2022-23**
Security Expenses	9.00	9.00	9.00	9.00	9.00

97. We have considered the submissions of the Petitioner. The Relevant Regulation of the 2019 Tariff Regulations is as follows:

"*35(3) (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."*

98. The Petitioner has submitted that the security expenses is on estimation basis and the same is allowed. However, the Petitioner is given liberty to submit the actual security expenses with all relevant details at the time of true-up for appropriate consideration of the Commission.

Sharing of Transmission Charges

99. With effect from 1.7.2011, sharing of transmission charges for inter-State transmission system was governed by the Central Electricity Regulatory Commission (Sharing of Transmission Charges and Losses) Regulations, 2010. With effect from 1.11.2020, sharing of transmission charges is governed by the Central Electricity Regulatory Commission (Sharing of Transmission Charges and Losses) Regulations. Therefore, the transmission charges from COD to 31.10.2020 shall be governed by the 2010 Sharing Regulations and from 1.11.2020 shall be governed by the 2020 Sharing Regulations. Accordingly, the liabilities of the 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 shall be recovered from the concerned DICs through Bill 2 under Regulation 15(2)(b) of the 2020 Sharing Regulations.

100. To summarise:

a) The trued-up Annual Fixed Charges (AFC) allowed in respect of the transmission assets for 2014-19 tariff period are as follows:

(₹ in lakh)

Particulars	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**
AFC allowed in previous order	1836.70	1854.64	1872.98	1891.97	1911.62
AFC allowed in the	**4356.30**	**4303.99**	**4245.65**	**4130.62**	**4018.94**

instant Petition					

b) Annual Fixed Charges allowed for the Combined Asset (i.e., transmission asset and additional transmission asset) for the 2019-24 tariff period in the instant order are as follows:

(₹ in lakh)

Particulars	**2019-20**	**2020-21**	**2021-22**	**2022-23**	**2023-24**
AFC	**4062.11**	**4092.79**	**3134.26**	**3108.09**	**3096.59**
Security Expenses allowed separately	**9.00**	**9.00**	**9.00**	**9.00**	**9.00**

101. Annexures-I, II and III given hereinafter form part of the order.

102. This order disposes of Petition No. 197/TT/2021 in terms of the above discussion and findings.

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

ANNEXURE-I

Debt/Equity Ratio of 80:20 for ROE & Interest on Loan for 2009-14

	Capital cost considered for Tariff as on the date of Licence (₹ in lakh)	Debt Equity Ratio (in %)
Debt	19382.74	80.00
Equity	4845.68	20.00
Total	**24228.42**	**100.00**

Interest on Loan

As per Regulation 16 of the 2009 Tariff Regulations, Interest on Loan has been computed and allowed as follows:

(₹ in lakh)

Particulars	2011-12	2012-13	2013-14
Net Loan Opening	19382.74	18244.02	16972.97
Additions	0	0	0
Repayment During the year	1138.72	1271.05	1271.05
Net Loan Closing	18244.02	16972.97	15701.92
Average Loan	18813.38	17608.495	16337.445
Weighted Average Rate of Interest on Loan (in %)	10.09	10.09	10.09
Interest on loan	1696.00	1776.70	1648.45

ANNEXURE-II

Capital Cost	Capital Cost as on 1.4.2014 / COD (₹ in lakh)	2014-15	2015-16	2016-17	2017-18	2018-19	Allowed ACE (₹ in lakh)	Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depr	2014-15	2015-16	2016-17	2017-18	2018-19
Land	8.00	0.00	0.00	0.00	0.00	0.00	0.00	8.00	0.00%					
Building	401.49	0.00	0.00	0.00	0.00	0.00	0.00	401.49	3.34%					
Transmission Line	20016.42	0.00	0.00	0.00	0.00	0.00	0.00	20016.42	5.28%	1271.05	1287.94	1304.84	1304.84	1304.84
Sub Station	3802.52	0.00	639.81	0.00	0.00	0.00	639.81	4442.33	5.28%					
PLCC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.33%					
Leasehold Land	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.00%					
IT Equipment and software	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.34%					
TOTAL	**24228.43**	**0.00**	**639.81**	**0.00**	**0.00**	**0.00**	**639.81**	**24868.24**		**1271.05**	**1287.94**	**1304.84**	**1304.84**	**1304.84**
									Avg Gross Block	**24228.43**	**24548.34**	**24868.24**	**24868.24**	**24868.24**
									WAROD	**5.246%**	**5.247%**	**5.247%**	**5.247%**	**5.247%**

ANNEXURE-III

Capital Cost	Capital Cost as on 1.4.2019 / COD (₹ in lakh)	2019-20	2020-21	2021-22	2022-23	2023-24	Allowed ACE (₹ in lakh)	Capital Cost as on 31.3.2014 (₹ in lakh)	Rate of Depr	2019-20	2020-21	2021-22	2022-23	2023-24
Land	8.00	0.00	0.00	0.00	0.00	0.00	0.00	8.00	0.00%					
Building	401.49	0.00	0.00	0.00	0.00	0.00	0.00	401.49	3.34%					
Transmission Line	20016.42	0.00	0.00	0.00	0.00	0.00	0.00	20016.42	5.28%	1348.994	1393.156	523.01	523.01	523.01
Sub Station	4442.33	1672.81	0.00	0.00	0.00	0.00	1672.81	6115.14	5.28%					
PLCC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.33%					
Leasehold Land	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.00%					
IT Equipment and software	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.34%					
TOTAL	**24868.24**	**1672.81**	**0.00**	**0.00**	**0.00**	**0.00**	**1672.81**	**26541.05**		**1348.99**	**1393.16**	**521.94**	**521.94**	**521.94**
									Avg Gross Block	**25704.64**	**26541.05**	**26541.05**	**26541.05**	**26541.05**
									WAROD	**5.248%**	**5.249%**	**1.967%**	**1.967%**	**1.967%**