

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 719/TT/2020

Coram:

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

Date of Order: 25.11.2021

In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and truing up of transmission tariff of the 2014-19 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of the 2019-24 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 of **Combined Asset** comprising of **Asset-1(a)**: 400 kV Meja-Allahabad Line-I alongwith 01 number 400 kV Allahabad bay and **Asset-1(b)**: 400 kV Meja-Allahabad Line-II alongwith 01 number 400 kV Allahabad bay under Transmission System Associated With Meja TPS in Northern Region.

And in the matter of:

Power Grid Corporation of India Limited,
'SAUDAMINI', Plot No-2,
Sector-29, Gurgaon-122001 (Haryana).

.....Petitioner

Versus

1. Rajasthan Rajya Vidyut Prasaran Nigam Limited,
Vidyut Bhawan, Vidyut Marg, Jaipur-302005 (Rajasthan).
2. Ajmer Vidyut Vitran Nigam Limited,
132 kV, GSS RVPNL Sub-station Building,
Caligiri Road, Malviya Nagar, Jaipur-302017 (Rajasthan).
3. Jaipur Vidyut Vitran Nigam Limited,
132 kV, GSS RVPNL Sub-station Building,
Caligiri Road, Malviya Nagar, Jaipur-302017 (Rajasthan).
4. Jodhpur Vidyut Vitran Nigam Limited,
132 kV, GSS RVPNL Sub-station Building,
Caligiri Road, Malviya Nagar, Jaipur-302017 (Rajasthan).
5. Himachal Pradesh State Electricity Board,
Vidyut Bhawan, Kumar House Complex Building II,
Shimla-171004 (Himachal Pradesh).



6. Punjab State Electricity Board,
Thermal Shed Tia, Near 22 Phatak,
Patiala-147001 (Punjab).
7. Haryana Power Purchase Centre,
Shakti Bhawan, Sector-6,
Panchkula-134109 (Haryana).
8. Power Development Department,
Government of Jammu & Kashmir,
Mini Secretariat, Jammu.
9. Uttar Pradesh Power Corporation Limited,
(Formerly Uttar Pradesh State Electricity Board),
Shakti Bhawan, 14, Ashok Marg, Lucknow-226001 (Uttar Pradesh).
10. Delhi Transco Limited,
Shakti Sadan, Kotla Road,
New Delhi-110002.
11. BSES Yamuna Power Limited,
B-Block, Shakti Kiran Bldg. (Near Karkardooma Courts),
Karkardooma 2nd Floor, New Delhi-110092.
12. BSES Rajdhani Power Limited,
BSES Bhawan, Nehru Place,
New Delhi-110019.
13. Tata Power Delhi Distribution Limited,
NDPL House, Hudson Lines Kingsway Camp,
Delhi-110009.
14. Chandigarh Administration,
Sector-9, Chandigarh.
15. Uttarakhand Power Corporation Limited,
Urja Bhawan, Kanwali Road, Dehradun (Uttarakhand).
16. North Central Railway,
Allahabad (Uttar Pradesh).
17. New Delhi Municipal Council,
Palika Kendra, Sansad Marg,
New Delhi-110002.
18. Meja Urja Nigam Private Limited,
NTPC Bhawan Scope Complex 7,
Institutional Area, Lodhi Road,
New Delhi-110003.



19. Uttar Pradesh Power Transmission Corporation Limited,
Shakti Bhawan, 14, Ashok Marg, Lucknow-226001

20. UPRVUNL,
Shakti Bhawan, 14, Ashok Marg,
Lucknow-226001.

.....Respondent(s)

For Petitioner : Shri S. S. Raju, PGCIL
Shri D. K. Biswal, PGCIL
Shri Ved Prakash Rastogi, PGCIL
Shri Amit Yadav, PGCIL

For Respondents : None

ORDER

The Petitioner, Power Grid Corporation of India Limited has filed the instant petition for trueing up of transmission tariff of the 2014-19 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and for determination of transmission 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 (hereinafter referred to as “the 2019 Tariff Regulations”) in respect of the following transmission assets forming part of Combined Asset under “Transmission System Associated With Meja TPS” in Northern Region (hereinafter referred to as “the transmission system”):

Asset-1(a): 400 kV Meja-Allahabad Line-I alongwith 01 number 400 kV Allahabad bay; and

Asset-1(b): 400 kV Meja-Allahabad Line-II alongwith 01 number 400 kV Allahabad bay.

2. The Petitioner has made the following prayers in the Petition:

“1) Approve the trueed up Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the assets covered under this petition, as per para 8 and 9 above.



- 2) *Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulation 2014 and Tariff regulations 2019 as per para 8 and 9 above for respective block.*
- 3) *Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 70 (1) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019, and other expenditure (if any) in relation to the filing of petition.*
- 4) *Allow the petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the respondents in terms of Regulation 70 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.*
- 5) *Allow the petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2019-24 period, if any, from the respondents.*
- 6) *Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 9.10 above.*
- 7) *Allow the petitioner to claim the capital spares at the end of tariff block as per actual.*
- 8) *Allow the Petitioner to bill and recover GST on Transmission Charges separately from the respondents, if GST on transmission is levied at any rate in future. Further, any taxes including GST and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.*

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

3. Backdrop of the case:

a) The Investment Approval (I.A.) for the transmission system was accorded by the Board of Directors (BOD) of the Petitioner's company (in its 284th meeting held on 8.3.2013) vide Memorandum Ref. No. C/CP/MEJA TPS dated 11.3.2013 at an estimated cost of ₹5573.00 lakh, including IDC of ₹341.00 lakh (based on December 2012 Price Level) with the scope of work as follows:

Transmission Line

Meja-Allahabad (POWERGRID) 400 kV D/C line



Sub-station:

Extension of 400/220 kV Allahabad (POWERGRID) - 02 numbers of 400 kV line bays

Note: 02 numbers of 400 kV bays at Meja will be developed by the Generating Agency.

b) Approval of Revised Cost Estimate (RCE) was accorded by BOD of the Petitioner's company (in its 345th meeting held on 19.9.2017) vide Memorandum Ref. No. C/CP/MEJA TPS dated 17.10.2017 at an estimated cost of ₹6997.00 lakh, including IDC of ₹515.00 lakh (based on April 2017 Price Level).

c) The transmission tariff of Asset-1(a) and Asset-1(b) for the period from COD to 31.3.2019 was allowed by the Commission vide order dated 5.10.2017 in Petition No. 203/TT/2016. The Commission vide order dated 5.10.2017 had considered COD of Asset-1(a) and Asset-1(b) as 10.11.2016 and 10.2.2017 respectively.

d) Aggrieved with the Commission's findings on sharing of transmission charges in order dated 5.10.2017 in Petition No. 203/TT/2016, MUNPL had filed an appeal bearing Appeal No. 6/2018 before the Appellate Tribunal for Electricity (APTEL). The APTEL vide judgment dated 28.9.2018 remanded back the matter to the Commission for fresh consideration.

e) In terms of the APTEL judgment dated 28.9.2019, the Commission vide order dated 7.11.2019 in Petition No. 203/TT/2016 had reconsidered the matter and *inter-alia* held as follows:

"25. Accordingly, the transmission charges from the COD of Circuit I and II of the transmission line, i.e. 10.11.2016 and 10.2.2017 respectively, till the date of start of LTA of Meja TPS shall be borne by MUNPL under Regulation 8(8) of Central Electricity Regulatory Commission (Grant of Connectivity, Long-term Access and Medium-term Open Access in inter-State Transmission and related matters) Regulations, 2009. Thereafter, the transmission charges shall be shared as per the provisions of Central Electricity Regulatory Commission (Sharing of inter-State Regulations Transmission Charges and Losses) Regulations, 2010 as detailed herein. In line with order dated 6.11.2018 in Petition No. 261/MP/2017, post COD of first unit of MUNPL, 50% transmission charges of the instant transmission system shall be borne by MUNPL till COD of its second unit and balance shall be included under PoC pool. Post COD of 2nd unit of MUNPL, the transmission charges for the instant transmission system shall be included in POC pool."



f) Further, vide revised order dated 7.11.2019, the Commission had also given findings pertaining to IDC and IEDC as follows:

“22....., the IDC and IEDC for the period between the date of approval of energisation of charging of the line and the date of commercial operation shall be borne by MUNPL as decided in our order dated 5.10.2017.”

g) The entire scope of work covered under the transmission system is complete and is covered in this petition.

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

5. The Petitioner has served the petition on the Respondents and notice regarding filing of this petition has been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments or suggestions have been received from the general public in response to the aforesaid notices published in the newspapers. Uttar Pradesh Power Corporation Limited (UPPCL), Respondent No. 9, has filed its reply vide affidavit dated 23.7.2021 and has made certain *generic* submissions in its reply as follows:

a) Combined Petition for true up (2014-19 period) and tariff determination (2019-24 period) filed by the Petitioner may not be allowed for the following reasons:

- i. Combining true-up and tariff determination petition in one petition amounts to compacted presentation and is difficult to address various issues due to paucity of information, as has happened in the instant petition where copy of Detailed Project Report (DPR), I.A. and RCE, decisions of RPC/ TTC, Standing Committee or CCEA, bidding details etc. have not been submitted;
- ii. The Tariff Regulations provide for filing of true up petition for the previous control period prior to or with the tariff petition filed for the next control period separately but do not provide for a combined petition for true up and tariff determination;



- iii. Approvals with respect to the transmission system such as copy of DPR, I.A. and RCE, decisions of RPC/ TTC, Standing Committee or CCEA etc. have not been submitted along with this petition;
 - iv. Post I.A., the Petitioner divided the transmission system in to two elements commissioned on 10.11.2016 and 10.2.2017 and after about 08 months of the commissioning of the second element of the transmission system on 10.2.2017, the cost estimates was revised to ₹6997.00 lakh (on 17.10.2017) with the rescheduled COD of November 2016 by the Petitioner's company. Resultantly, as per RCE, the capital cost was increased by 26% of the original estimate and scheduled commissioning extended by 16 months;
 - v. There was no rationale of getting RCE approved as the Petitioner knew the exact cost of construction of the transmission system;
 - vi. After the approval of scope of work in the I.A., the Petitioner had split up the transmission system into transmission assets commissioned on different dates;
 - vii. The I.A. or RCE specified the scheduled COD for the complete scope of work but never stipulated the splitting the transmission system into the transmission assets;
 - viii. RCE approval after commissioning of Asset-1(b) has no relevance as apparently RCE was approved to nullify or mitigate the effects of time and cost over-run in the commissioning of the transmission assets, particularly Asset-1(a);
 - ix. In view of above, once a project is conceived and sanctioned for a defined scope of work, single cost estimate and date of commissioning, it cannot be split into sub-assets and same might not be allowed;
- b) The Petitioner has projected Additional Capital Expenditure (ACE) of ₹59.00 lakh during the 2019-24 period (within RCE) which is beyond cut-off date of 31.3.2017;
- c) UPPCL has referred to the Commission's order dated 27.5.2016 in Petition No. 62/TT/2015 and submitted that details of bids invited for construction of the transmission system have not been submitted by the Petitioner;



- d) Accordingly, UPPCL has prayed as follows:
- i. To issue direction to the Petitioner to file all future true-up petitions separately.
 - ii. To direct the Petitioner to submit all future tariff proposals based on (a) Cost, scheduled COD, scope of work and financing plan approved in I.A. and cut-off date as per Tariff Regulations (b) The price quoted by the successful bidder, completion time contracted and price escalation formula agreed with the bidder, date of start and work(s) completion under the scope of a project.

6. The issues raised by UPPCL as above have been clarified by the Petitioner in its rejoinder filed vide affidavit dated 29.10.2021 and UPPCL's reply/ objections and clarifications related thereto as given by the Petitioner have been considered in the relevant portions of this order.

7. The Petitioner vide affidavit dated 29.10.2021 has submitted that requisite information, in accordance with the Tariff Regulations and adequate for carrying out prudence check of the claims made, is furnished in this petition and subsequent reply filed in response of Technical Validation letter and Record of Proceedings (RoP). A copy of I.A., RCE, DPR and minutes of the meetings of 29th SCM in NR and 19th NRPC has been submitted by the Petitioner along with its rejoinder.

8. The Petitioner has submitted that with respect to the transmission assets, it had claimed combined COD of 10.11.2016 but divided the transmission system into two elements based on COD as approved by the Commission vide order dated 5.10.2017 in Petition No. 203/TT/2016. Due to non-commissioning of the associated bay under the scope of MUNPL, COD of Asset-1(b) was claimed as 10.2.2017 matching with the commissioning of said associated bay.

9. The Petitioner has submitted that it implements transmission schemes based on recommendations of CEA/ RPC/ Standing Committee/ National Committee on



Transmission, etc. Hence, the size of the scheme, configuration etc. are beyond the Petitioner's control. Further, a transmission scheme executed by the Petitioner consists of various assets like transmission line, new sub-station, sub-station bays, equipment like ICTs, reactors, STATCOMs, etc.

10. The Petitioner has submitted that inherently all infrastructure projects particularly linear projects such as transmission projects are prone to delay due to factors beyond the control of the developers viz. project specific conditions such as terrain, project location, land issues, RoW constraints. Also, because of geographical spread of a transmission system, simultaneous commissioning of all assets is very difficult. The time required for commissioning of a transmission line and sub-station equipment are different. Therefore, by inherent nature of transmission system, individual components of a transmission system are usually commissioned in phases, complete scheme are completed progressively and sometimes there can be difference of 2-3 years in completion of first asset and last asset of a transmission system. The Commission while approving capital cost and determining transmission tariff decides the merit of reasons of delay and if the same is attributable to transmission licensee or otherwise. The Petitioner has further submitted that Regulation 6 of the 2014 Tariff Regulations provides flexibility to transmission licensees that for the purpose of tariff, the capital cost of a project may be broken up into transmission lines or sub-stations, if required.

11. The Petitioner has submitted that Revised Cost Estimate (RCE) was accorded by BOD of the Petitioner's company (in its 345th meeting held on 19.9.2017) vide Memorandum Ref. No. C/CP/MEJA TPS dated 17.10.2017. Further, the transmission system was scheduled to be commissioned within 28 months from the date of IA. Therefore, the scheduled COD of the instant transmission system was 7.7.2015 and,



accordingly, the schedule of completion date works out to 7.7.2015 against which Asset-1(a) and Asset-1(b) were put under commercial operation on 10.11.2016 and 10.2.2017 respectively. The scheduled COD claimed for calculating time over-run was taken as per I.A. and not as per RCE. Also, with respect to 400 kV D/C Meja-Allahabad Transmission Line, CEA Inspection was carried out on 5.4.2016 and anti-theft charging was done from Allahabad end on 5.5.2016. However, the Petitioner could not declare COD due to non-availability of Trial Run certificate in absence of readiness of associated bays under the scope of MUNPL.

12. The Petitioner has submitted that it has claimed COD as per the Commission's order dated 5.10.2017 in Petition No. 203/TT/2016.

13. The Petitioner has submitted that the time over-run with respect to the transmission assets has already been condoned by the Commission vide order dated 5.10.2017 in Petition No. 203/TT/2016.

14. The Petitioner has submitted that based on the Commission's directions, COD of Asset-1(a) and Asset-1(b) has been claimed as 10.11.2016 and 10.2.2017 respectively and accordingly, cut-off date for Asset-1(a) and Asset-1(b) was 31.3.2019 and 31.3.2020 respectively. Further, the Petitioner has submitted that ACE (with respect to the transmission assets) has been claimed within cut-off date and ACE details have been submitted by the Petitioner vide affidavit dated 15.2.2021.

15. The Petitioner has submitted that with respect to the transmission system, cost estimates are prepared based on Schedule of Rates based on the average of unit rates of latest three bids/ LOAs/ raw material prices in order to achieve the cost efficiency by estimating the capital cost. Subsequently, the award for execution of the transmission system was placed after following the transparent process of tendering, bid evaluation and award of work to lowest technical and commercially responsive bid.



16. The Petitioner has submitted the requisite information in accordance with the applicable Tariff Regulations adequate for carrying out prudence check of the Petitioner's claims, has been furnished in this petition and in response to technical validation letter.

17. We have considered the submissions made by UPPCL and the clarifications thereto submitted by the Petitioner with regard to preliminary issues like splitting of assets under a project, filing separate tariff petitions for separate tariff periods and Revised Cost Estimates. Regulation 3(21) and Regulation 3(46) of the 2014 Tariff Regulations define 'element' and 'project' as follows:

*"(21) '**Element**' in respect of a transmission system shall mean an asset which has been distinctively defined under the scope of the project in the Investment Approval;"*

*(46) '**Project**' means a generating station or a transmission system including communication system, as the case may be, and in case of a hydro generating station includes all components of generating facility such as dam, intake water conductor system, power generating station and generating units of the scheme, as apportioned to power generation and in case of thermal generating stations does not include mining if it is a pit head project and dedicated captive coal mine;"*

18. Regulation 6 of the 2014 Tariff Regulations provides as follows:

"6. Tariff determination

(1) Tariff in respect of a generating station may be determined for the whole of the generating station or stage or generating unit or block thereof, and tariff in respect of a transmission system may be determined for the whole of the transmission system or transmission line or sub-station or communication system forming part of transmission system:

Provided that:

(i) where all the generating units of a stage of a generating station or all elements of a transmission system have been declared under commercial operation prior to 1.4.2014, the generating company or the transmission licensee, as the case may be, shall file consolidated petition in respect of the entire generating station or transmissions system for the purpose of determination of tariff for the period 2014-15 to 2018-19:

(ii) in case of commercial operation of the generating station or transmission system including communication system on or after 1.4.2014, the generating company or transmission licensee shall file a consolidated petition combining all the units of the generating station or file appropriate petition for transmission elements of the



transmission system which are likely to be commissioned during next six months from the date of application:

(iii) the tariff of the existing communication system forming part of transmission system shall be as per the methodology followed by the Commission prior to 1.4.2014.

(2) For the purpose of determination of tariff, the capital cost of a project may be broken up into stages, blocks, units, transmission lines and sub-stations, forming part of the project, if required: Provided that where break-up of the capital cost of the project for different stages or units or blocks and for transmission lines or sub-stations is not available and in case of on-going projects, the common facilities shall be apportioned on the basis of the installed capacity of the units, line length and number of bays:

Provided further that in relation to multi-purpose hydro schemes, with irrigation, flood control and power components, the capital cost chargeable to the power component of the scheme only shall be considered for determination of tariff.

(3) Where an existing transmission project has been granted licence under section 14 of the Act read with Regulation 6(c) of the Central Electricity Regulatory Commission (Terms and Conditions of grant of Transmission Licence for inter-State Transmission of electricity and related matters) Regulations, 2009, the tariff of such project shall be applicable from the date of grant of transmission licence or from the date as indicated in the transmission licence, as the case may be. In such cases, the applicant shall file petition as per Annexure-I, clearly demarcating the assets which form the part of regulated business of generation and transmission, the value of such assets, source of funding etc. duly certified by an auditor.

(4) In case of multi-purpose hydro generation scheme with irrigation, flood control and power components, the capital cost chargeable to the power component of the scheme only shall be considered for determination of tariff.

(5) Where only a part of the generation capacity of a generating station is tied up for supplying power to the beneficiaries through long term power purchase agreement and the balance part of the generation capacity have not been tied up for supplying power to the beneficiaries, the tariff of the generating station shall be determined with reference to the capital cost of the entire project, but the tariff so determined shall be applicable corresponding to the capacity contracted for supply to the beneficiaries.”

19. Regulation 7 of the 2014 Tariff Regulations provides as follows:

“7. Application for determination of tariff: (1) The generating company may make an application for determination of tariff for new generating station or unit thereof in accordance with the Procedure Regulations, in respect of the generating station or generating units thereof within 180 days of the anticipated date of commercial operation.

(2) The transmission licensee may make an application for determination of tariff for new transmission system including communication system or element thereof as the case may be in accordance with the Procedure Regulations, in respect of the transmission system or elements thereof anticipated to be commissioned within 180 days from the date of filing of the petition.



(3) In case of an existing generating station or transmission system including communication system or element thereof, the application shall be made not later than 180 days from the date of notification of these regulations based on admitted capital cost including any additional capital expenditure already admitted up to 31.3.2014 (either based on actual or projected additional capital expenditure) and estimated additional capital expenditure for the respective years of the tariff period 2014-15 to 2018-19.

(4) The generating company or the transmission licensee, as the case may be, shall make an application as per Annexure-I of these regulations, for determination of tariff based on capital expenditure incurred duly certified by the auditors or projected to be incurred up to the date of commercial operation and additional capital expenditure incurred duly certified by the auditors or projected to be incurred during the tariff period of the generating station or the transmission system as the case may be: Provided that the petition shall contain details of underlying assumptions for the projected capital cost and additional capital expenditure, wherever applicable.

(5) If the petition is inadequate in any respect as required under Annexure-I of these regulations, the application shall be returned to the generating company or transmission licensee as the case may be, for resubmission of the petition within one month after rectifying the deficiencies as may be pointed out by the staff of the Commission.

(6) If the information furnished in the petition is in accordance with the regulations and is adequate for carrying out prudence check of the claims made, the Commission shall consider the suggestions and objections, if any, received from the respondents within one month from the date of filing of the petition and any other person including the consumers or consumer associations. The Commission shall issue the tariff order after hearing the petitioner, the respondents and any other person specifically permitted by the Commission.

(7) In case of the new projects, the generating company or the transmission licensee, as the case may be, may be allowed tariff by the Commission based on the projected capital expenditure from the anticipated COD in accordance with Regulation 6 of these regulations:

Provided that :

(i) the Commission may grant tariff upto 90% of the annual fixed charges claimed in respect of the transmission system or element thereof based on the management certificate regarding the capital cost for the purpose of inclusion in the POC charges in accordance with the CERC (Sharing of Inter State Transmission charges and losses), Regulation, 2010 as amended from time to time:

(ii) if the date of commercial operation is delayed beyond 180 days from the date of issue of tariff order in terms of clause (6) of this regulation, the tariff granted shall be deemed to have been withdrawn and the generating company or the transmission licensee shall be required to file a fresh application for determination of tariff after the date of commercial operation of the project:

(iii) where the capital cost considered in tariff by the Commission on the basis of projected capital cost as on COD or the projected additional capital expenditure exceeds the actual capital cost incurred on year to year basis by more than 5%, the generating company or the transmission licensee shall refund to the beneficiaries or



the long term transmission customers /DICs as the case may be, the excess tariff recovered corresponding to excess capital cost, as approved by the Commission alongwith interest at 1.20 times of the bank rate as prevalent on 1st April of respective year:

(iv) where the capital cost considered in tariff by the Commission on the basis of projected capital cost as on COD or the projected additional capital expenditure falls short of the actual capital cost incurred on year to year basis by more than 5%, the generating company or the transmission licensee shall be entitled to recover from the beneficiaries or the long term transmission customers /DICs as the case may be, the shortfall in tariff corresponding to reduction in capital cost, as approved by the Commission alongwith interest at 0.80 times of bank rate as prevalent on 1st April of respective year.

(8) In case of the existing projects, the generating company or the transmission licensee, as the case may be, may be allowed tariff by the Commission based on the admitted capital cost as on 1.4.2014 and projected additional capital expenditure for the respective years of the tariff period 2014-15 to 2018-19 in accordance with the Regulation 6: Provided that: (i) the generating company or the transmission licensee, as the case may be, shall continue to bill the beneficiaries or the transmission customers / DICs at the tariff approved by the Commission and applicable as on 31.3.2014 for the period starting from 1.4.2014 till approval of tariff by the Commission in accordance with these regulations: (ii) where the capital cost considered in tariff by the Commission on the basis of projected capital cost as on COD or the projected additional capital expenditure submitted by the generating company or the transmission licensee, as the case may be, exceeds the actual capital cost incurred on year to year basis by more than 5%, the generating company or the transmission licensee shall refund to the beneficiaries or the long term transmission customers /DICs as the case may be, the excess tariff recovered corresponding to excess capital cost, as approved by the Commission alongwith interest at 1.20 times of the bank rate as prevalent on April 1 of respective year: (iii) where the capital cost considered in tariff by the Commission on the basis of projected capital cost as on COD or the projected additional capital expenditure submitted by the generating company or the transmission licensee, as the case may be, falls short of the actual capital cost incurred on year to year basis by more than 5%, the generating company or the transmission licensee shall be entitled to recover from the beneficiaries or the long term transmission customers /DICs as the case may be, the shortfall in tariff corresponding to reduction in capital cost, as approved by the Commission alongwith interest at 0.80 times of bank rate as prevalent on April 1 of respective year.

20. In view of the above, we have considered the petition and allowed transmission tariff for the distinguishable assets as per the 2014 Tariff Regulations/ the 2019 Tariff Regulations (where applicable) from their actual date of commercial operation. Similarly, the Commission considers and allows tariff on a consolidated tariff petition as per the 2014 Tariff Regulations/ the 2019 Tariff Regulations (where applicable) in respect of asset(s)/ project(s) after due prudence check of the required essential documents submitted by the Petitioner.



21. We have considered the submissions of UPPCL and the clarifications/submissions made by the Petitioner with regard to RCE. The Commission has also noted in several petitions that investment approval and the revised cost estimates of the Petitioner are not realistic. In our view, the Petitioner should adopt a prudent procedure to make cost estimates of different elements of the transmission projects more realistic.

22. This order is issued considering the submissions made by the Petitioner in the petition vide affidavit dated 7.2.2020, the Petitioner's affidavit dated 15.2.2021 and 20.7.2021 filed in response to technical validation letter dated 28.1.2021 and Record of Proceedings dated 6.7.2021 respectively, UPPCL's reply filed vide affidavit dated 23.7.2021 and the Petitioner's rejoinder filed vide affidavit dated 29.10.2021.

23. The hearing in this matter was held on 6.7.2021 through video conference and the order was reserved. Having heard the representatives of 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

24. The details of the trued-up transmission charges as claimed by the Petitioner in respect of the transmission assets for the 2014-19 tariff period are as follows:

Particulars	Asset-1(a)		
	2016-17 (pro-rata 142 days)	2017-18	2018-19
Depreciation	86.89	232.79	242.26
Interest on Loan	99.02	243.99	226.21
Return on Equity	98.21	263.09	274.36
O&M Expenses	28.19	66.51	68.71
Interest on Working Capital	7.76	19.61	19.79
Total	320.07	825.99	831.33

(₹ in lakh)



(₹ in lakh)

Particulars	Asset-1(b)		
	2016-17 (pro-rata 50 days)	2017-18	2018-19
Depreciation	11.52	86.16	90.29
Interest on Loan	13.81	98.72	94.97
Return on Equity	13.22	98.91	103.79
O&M Expenses	11.81	89.07	92.02
Interest on Working Capital	1.46	10.85	11.12
Total	51.82	383.71	392.19

25. The details of the trued-up Interest on Working Capital (IWC) as claimed by the Petitioner in respect of the transmission assets for the 2014-19 tariff period are as follows:

(₹ in lakh)

Particulars	Asset-1(a)		
	2016-17(pro-rata 142 days)	2017-18	2018-19
O&M Expenses	6.41	5.54	5.73
Maintenance Spares	11.53	9.98	10.31
Receivables	137.85	137.67	138.55
Total Working Capital	155.79	153.19	154.59
Rate of Interest (in %)	12.80	12.80	12.80
Interest on Working Capital	7.76	19.61	19.79

(₹ in lakh)

Particulars	Asset-1(b)		
	2016-17(pro-rata 50 days)	2017-18	2018-19
O&M Expenses	7.18	7.42	7.67
Maintenance Spares	12.93	13.36	13.80
Receivables	63.04	63.95	65.37
Total Working Capital	83.15	84.73	86.84
Rate of Interest (in %)	12.80	12.80	12.80
Interest on Working Capital	1.46	10.85	11.12

Capital Cost

26. The capital cost of the transmission assets has been calculated in accordance with Regulation 9(3) of the 2014 Tariff Regulations.

27. The Commission vide order dated 5.10.2017 in Petition No. 203/TT/2016 had allowed the capital cost and combined capital cost for Asset-1(a) and Combined Asset



respectively. Also, no ACE incurred/ projected to be incurred was allowed as the capital cost claimed was restricted to the apportioned approved cost. The capital cost and combined capital cost as allowed are as follows:

(₹ in lakh)

Asset	Capital Cost/ Combined Capital Cost
Asset-1(a)	2713.32*
Combined Asset	5426.63**

* Capital Cost allowed up to 10.11.2016

** Capital Cost allowed up to 10.2.2017

28. The details of the apportioned approved cost, capital cost as on COD and 31.3.2019 (including ACE during the 2014-19 tariff period) with respect to the transmission assets as submitted by the Petitioner in this petition are as follows:

(₹ in lakh)

Asset	Apportioned approved Capital Cost (as per RCE)	Capital Cost (as on COD)	ACE during 2014-19			Capital Cost (as on 31.3.2019)
			2016-17	2017-18	2018-19	
Asset-1(a)	5007.30	4228.60	169.13	105.42	250.84	4753.99
Asset-1(b)	1989.70	1643.15	16.06	28.02	127.43	1814.66

Cost Over-run

29. The Commission vide order dated 5.10.2017 in Petition No. 203/TT/2016 had restricted the capital cost claimed up to the apportioned approved cost. Further, in the absence of RCE, the Petitioner's claim with respect to IDC was restricted as per I.A. In this petition, the Petitioner has submitted a copy of RCE duly approved by BOD of the Petitioner's company.

30. The Petitioner has submitted that completed cost is within RCE apportioned approved cost. The details of the FR apportionment and RCE apportionment, completed cost and percentage cost variation as submitted by the Petitioner vide affidavit dated 20.7.2021 are as follows:



(₹ in lakh)				
Asset	FR approved Capital Cost	Approved Capital Cost as per RCE	Completion Cost	Cost Variation w.r.t. FR Cost (in %)
Asset-1(a)	4038.69	5007.30	4753.99	17.71
Asset-1(b)	1534.67	1989.70	1872.66	22.02
Total	5573.36	6997.00	6626.65	18.89

31. With regard to cost variation, the Petitioner vide affidavit dated 20.7.2021 has submitted as follows:

- a) Increase/ decrease in award cost received in competitive bidding with respect to initial estimates (FR cost) is mainly due to open competitive bidding route which is followed by providing equal opportunity to all eligible firms.
- b) Lowest possible market prices for required product/ services is obtained and contracts are awarded on the basis of lowest evaluated eligible bidder. The best competitive bid prices against tenders may happen to be lower or higher than the cost estimate depending upon prevailing market conditions.
- c) A robust and time-tested system of preparing cost estimates before obtaining I.A. is followed and after I.A., the award letters are placed on the executing agencies on the basis of tendering process as per best industry practices and due diligence including justification of bid prices *vis-à-vis* estimated cost before placing the awards.
- d) Further, the cost control measures are taken during execution of the project and only under unavoidable situations caused by the actual soil/ terrain conditions, crossing requirements (river, power line, railway line, forest stretches and any other compelling technical reason), the cost may undergo changes.

32. The Petitioner vide affidavit dated 20.7.2021 has submitted the item-wise detailed justification of cost variation in Form 5. RCE at April 2017 Price Level works out to ₹6997.00 lakh as follows:

(₹ in lakh)			
	FR Approved Capital Cost (December 2012 Price Level) (A)	RCE (April 17 Price Level) (B)	Cost Variation (B)-(A)
Cost (excl. IEDC/ IDC)	4602	6020	1418
IEDC incl. contingencies	631	462	(-) 169
IDC	341	515	175



Total	5573	6997	1423 (25.54%)*
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*There is a variation of ₹1423.00 lakh (25.54 %) from the approved capital cost of ₹5573.00 lakh.

33. The Petitioner vide affidavit dated 20.7.2021 has submitted the detailed justification of cost variation as follows:

a) Price Variation (PV) [Net Increase of ₹833.00 lakh: 14.95%]:

i. There is an increase in the cost by ₹833.00 lakh on this account, which works out to 14.95% of the approved cost.

- With regard to PV from DPR to LOA, the contracts for various packages with respect of the transmission system were awarded to the lowest evaluated and responsive bidder, on the basis of competitive bidding, after publication of NITs in leading newspapers. Thus, the award prices represent the lowest prices available at the time of bidding of various packages.

ii. Further, PV incurred/ likely to be incurred under the said contracts is mainly due to variation in indices of various major raw materials during execution of the transmission system, as follows:

(₹ in lakh)

Name of Indices	December 2011 (one month prior to first OBD)	March 2012	DPR (December 2012 Price Level)	March 2014	September 2015	%age increase from first OBD
Tower Steel	51961	53234	54765	53586	42946	-17.35
HG Zinc	118700	120600	129200	159200	138900	17.02
EC Grade Al	136000	142167	147033	147717	131817	-3.08
CRGO	180040	165697	167200	194009	254693	41.46
Copper	425758	460084	463129	422611	366693	-13.87
WPI	157.3	161.0	168.8	180.3	176.5	12.21
WPI for Ferrous metals	151.1	154.8	154.9	157.8	142.5	-5.69
WPI for Fuel and Power	172.7	177.8	190.4	214.2	175.6	1.68
CPI	197	201	219	239	266	35.03



b) Variation in quantities of approved items (net increase of ₹519.00 lakh: 9.31%):

- i. The line length, number and type of towers have been considered as per detailed survey carried out during execution of the transmission system as per available rate because of which, there has been variation in quantities of various items such as tower steel, conductor, concrete and reinforcement as follows:
- Tower: ₹248.00 lakh
 - Insulators: ₹72.00 lakh
 - Concreting/ Reinforcement: ₹173.00 lakh
- ii. Due to above, there is an increase of ₹519.00 lakh under the mentioned head which works out to 9.31% of the approved cost.

c) Crop and Forest Compensation (Net increase of ₹72.00 lakh: 1.30%):

- i. Based on approved cost, there was a provision of ₹166.00 lakh under this head but based on actual/ anticipated expenditure, an amount of ₹238.00 lakh is incurred/ to be incurred resulting in increase of ₹72.00 lakh in project cost.
- ii. The main reason for increase in project cost is submitted as follows:

(₹ in lakh)

Description	As per DPR	As per RCE	Remarks
Compensation towards Crop and PTCC	153	233	Based on actual/ anticipated payments.
Compensation towards Forest	13	5	Based on actual/ anticipated payments.
TOTAL	166	238	

d) Increase in IDC

IDC as per approved DPR was estimated at ₹341.00 lakh whereas based on the actual and anticipated funds flow, IDC as per RCE has been worked out to ₹515.00 lakh which is an increase of ₹174.00 lakh. The main reasons for this increase are increase in the Project Time Cycle and change in COD as approved by the Commission.



34. The Petitioner vide affidavit dated 29.10.2021 has re-submitted the afore-stated submissions with respect to cost variation and additionally has submitted as follows:

a) With regard to RCE approval, normally as per the Works and Procurement Policy (WPP), expenditure for any project is incurred as per the approved cost by BOD of the Petitioner's company. However, estimated cost needs to be revised intermittently as per the need considering the actual expenditure done and balance estimated expenditure during the course of implementation of the project. As per WPP, the policy with respect to the preparation of RCE is as follows:

- i. Once main packages of a project are awarded, RCE is worked out taking into consideration the anticipated price variation. Whenever there are variations with reference to original estimate, the reason for variations and the basis of revised estimate will also be indicated. While working out RCE, the cost of site packages and the expenditure incurred for land acquisition and other related works shall also be considered.
- ii. RCE is again reviewed when the actual expenditure incurred is approximately 50% of the approved cost estimate of the project (FR cost).
- iii. RCE is further reviewed six months prior to the anticipated completion of the project. Therefore, RCE is being prepared based on actual expenditure already incurred as well as expenditure to be incurred for completion of the project. Further, if at any time during execution, the project completion is anticipated to be delayed beyond the schedule commissioning, RCE is expected to exceed the original approved cost.

b) The details regarding award of work, date of award, contractor etc. of work, etc. has been submitted in Form 5A (in Petition No. 203/TT/2016). Also, Form 5A as per actual expenditure for Asset-1(a) and Asset-1(b) has been submitted.

35. We have considered the submissions of the Petitioner. The capital cost as on 31.3.2019 (including ACE during the 2014-19 period) is within the approved capital cost as per RCE.



Time Over-run

36. The transmission system was scheduled to be commissioned within 28 months from the date of IA. Therefore, the scheduled date of commissioning of the instant transmission system was 7.7.2015. The details of COD, scheduled COD and time over-run with respect to the transmission assets are as follows:

Asset	SCOD	COD	Time Over-run
Asset-1(a)	7.7.2015	10.11.2016	492 days
Asset-1(b)	7.7.2015	10.2.2017	584 days

37. The Commission vide order dated 5.10.2017 in Petition No. 203/TT/2016 read with corrigendum dated 28.5.2018 had already condoned the time over-run from scheduled COD of 7.7.2015 to 5.4.2016 and capitalised the IDC and IEDC for the said period. The Commission also held that the IDC and IEDC for the period between the date of approval of energisation of charging of the line and the date of commercial operation shall be borne by MUNPL. The relevant extracts of the Order dated 7.11.2019 in Petition No. 203/TT/2016 are as follows:

“22....., the IDC and IEDC for the period between the date of approval of energisation of charging of the line and the date of commercial operation shall be borne by MUNPL as decided in our order dated 5.10.2017.”

Interest during construction (IDC) and Incidental expenditure during construction (IEDC)

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

Asset	IDC as per Auditor's Certificates dated 7.2.2020	IDC discharged up to COD	(₹ in lakh)	
			IDC discharged 2016-17	Total
Asset-1(a)	196.42	110.46	85.96	196.42
Asset-1(b)	141.28	104.61	36.67	141.28



39. The Petitioner has submitted that the Commission vide order dated 7.11.2019 in Petition No. 203/TT/2016 had directed the Petitioner to recover IEDC and IDC from CEA energisation Certificate date to respective COD for Asset-1(a) and Asset-1(b) directly from MUNPL. The Petitioner has further submitted that earlier in Petition No. 203/TT/2016, there was an inadvertent error in the date of CEA Certificate furnished by the Petitioner, instead of 5.4.2016, the actual date of issuance of CEA Certificate is 11.4.2016. Accordingly, the Petitioner vide Auditor's Certificates dated 7.2.2020 has submitted IDC and IEDC in respect of Asset-1(a) and Asset-1(b) to be recovered directly from MUNPL considering the date of CEA energisation as 11.4.2016. The same has been summarised as under:

Asset	Period		(₹ in lakh)	
	From	To	IDC	IEDC
Asset-1(a)	11.4.2016	9.11.2016	158.29	12.89
Asset-1(b)	11.4.2016	9.2.2017	89.03	7.54

40. The Petitioner vide affidavit dated 15.2.2021 has submitted that IDC claimed in Auditor's Certificate is exclusive of the claim of IDC to be recovered directly from MUNPL as per the Commission's direction in its order dated 7.11.2019 in Petition No. 203/TT/2016.

41. We have considered the submissions of the Petitioner and noted that the Commission vide order dated 7.11.2019 in Petition No. 203/TT/2016 had held that the IDC and IEDC from the date of issue of CEA energisation certificate to actual COD of Asset-1(a) and Asset-1(b) shall be borne by MUNPL. However, the Petitioner in the instant petition has submitted the date of CEA certificate as 11.4.2016 that was in Petition No. 203/TT/2016 was inadvertently mentioned as 5.4.2016. On perusal of the CEA certificate submitted in the instant petition, it has been observed that the CEA has issued corrigendum dated 18.4.2018 in respect of CEA Certificate dated 5.4.2016



issued for approval for energisation of 400 kV D/C Meja-Allahabad transmission line of Powergrid. In the said Corrigendum dated 18.4.2018, CEA has clearly stated that the date of issuance of the CEA Certificate may be read as 11.4.2016 instead of 5.4.2016. Accordingly, IDC and IEDC upto 10.4.2016 has been capitalised and IDC and IEDC from 11.4.2016 (CEA Certificate date) to the respective COD of Asset-1(a) and Asset-1(b) shall be borne by MUNPL.

42. IDC is worked out based on the details given in the submissions. Further, the loan amount as on COD has been mentioned in Forms 6 and 9C. The allowable IDC is worked out based on the information available on record and relying on loan amount as per Form 9C. IDC claimed and considered as on COD and summary of discharge of IDC liability up to COD and thereafter for the purpose of tariff determination is as follows:

Asset	IDC claimed (exclusive of IDC amount to be recovered directly from MUNPL)	IDC allowed	IDC discharged upto COD	(₹ in lakh)	
				IDC discharged	2016-17
Asset-1(a)	196.42	196.42	110.46	85.96	
Asset-1(b)	141.28	141.28	104.61	36.67	

43. The Petitioner has claimed IEDC in respect of the transmission assets in line with Auditor's Certificate dated 7.2.2020. Further, the Petitioner has submitted that IEDC claimed in Auditor's Certificate is exclusive of IEDC claim to be recovered directly from MUNPL as per the Commission's direction. The Petitioner has submitted that the entire IEDC mentioned in the Auditor's Certificate is on cash basis and discharged up to COD.

44. IEDC considered as on COD for the purpose of tariff determination in this order is as follows:



Asset	IEDC claimed (exclusive of IEDC amount to be recover directly from MUNPL)	(₹ in lakh)
		IEDC allowed
Asset-1(a)	238.46	238.46
Asset-1(b)	90.27	90.27

Initial Spares

45. Regulation 13(d) of the 2014 Tariff Regulations provides as follows:

“13. Initial Spares shall be capitalised as a percentage of the Plant and Machinery cost upto cut-off date, subject to following ceiling norms:

....

(d) Transmission system

- (i) Transmission line - 1.00%*
- (ii) Transmission Sub-station (Green Field) - 4.00%*
- (iii) Transmission Sub-station (Brown Field) - 6.00%*
- (iv) Series Compensation devices and HVDC Station - 4.00%*
- (v) Gas Insulated Sub-station (GIS) - 5.00%*
- (vi) Communication system - 3.5%”*

46. The Initial Spares with respect to the transmission assets for the 2014-19 period as claimed by the Petitioner in this petition are as follows:

Asset	Particulars	Plant & Machinery Cost (A) (₹ in lakh)	Initial Spares Claimed (B) (₹ in lakh)	Ceiling Limit (%) (C)	Initial Spares Worked out (₹ in lakh)	Excess Initial Spares (₹ in lakh)
					$D = [(A-B)*C / (100-C)]$	
Asset-1(a)	Brownfield Sub-station	571.81	17.68	6.00	35.37	0.00
Asset-1(b)	Brownfield Sub-station	575.97	17.68	6.00	35.64	0.00
TOTAL		1147.78	35.36		71.01	0.00

47. We have considered the submissions of the Petitioner and based on the information available on record, Initial Spares in respect of the transmission assets for the 2014-19 period are allowed as per respective percentage of the Plant and Machinery Cost as on the cut-off date on individual basis as follows:



Asset	Particulars	Estimated Completion Cost (A)	Initial Spares Claimed (B)	Ceiling Limit (%) (C)	Initial Spares Worked out	Excess Initial Spares	Initial Spares allowed (₹ in lakh)
					$D = [(A-B) \times C] / (100-C)$		
Asset-1(a)	Brownfield Sub-station	571.81	17.68	6.00	35.37	0.00	17.68
Asset-1(b)	Brownfield Sub-station	521.53	17.68	6.00	35.64	0.00	17.68

Capital Cost as on COD

48. The details of the capital cost as on COD approved after adjustment of IDC, is as follows:

(₹ in lakh)

Asset	Capital Cost claimed as on COD	Un-discharged IDC as on COD	Capital Cost allowed as on COD
	1	2	3=(1-2)
Asset-1(a)	4228.61	85.96	4142.65
Asset-1(b)	1643.15	36.67	1606.48

Additional Capital Expenditure

49. The Commission vide order dated 5.10.2017 in Petition No. 203/TT/2016 had not allowed ACE incurred/ projected to be incurred for the transmission assets during the 2014-19 tariff period due to cost over-run in comparison to the approved apportioned capital cost.

50. The Petitioner has claimed ACE during the 2014-19 period (based on actual expenditure) as follows:

(₹ in lakh)

Asset	2016-17	2017-18	2018-19	Total
Asset-I	255.09	105.42	250.84	611.35
Asset-II	52.73	28.02	127.43	208.18

51. The Petitioner has submitted in this petition that ACE incurred during the 2014-19 tariff period has been claimed in accordance with Regulations 14(1)(i) and 14(1)(ii) of the 2014 Tariff Regulations and is towards balance and retention payments due to



undischarged liability for works executed within cut-off date/ work deferred for execution.

52. The details of ACE claimed during the 2014-19 period (package and vendor wise) has been submitted by the Petitioner vide affidavit dated 15.2.2021 as follows:

Asset	Year	Vendor Name	Package	Amount (₹ in lakh)
Asset-1(a)	2016-17	M/s Jyoti Structures Limited	Transmission line	169.13
	2017-18	M/s Jyoti Structures Limited	Transmission line	105.42
	2018-19	M/s Jyoti Structures Limited	Transmission line	99.29
	2018-19	M/s L&T Limited	Sub-station	90.96
	2018-19	M/s L&T Limited	Sub-station	50.97
	2018-19	M/s L&T Limited	PLCC	9.62
		TOTAL		525.39

Asset	Year	Vendor Name	Nature of Work	Amount (₹ in lakh)
Asset-1(b)	2016-17	M/s Jyoti Structures Limited	Transmission line	16.06
	2017-18	M/s Jyoti Structures Limited	Transmission line	28.02
	2018-19	M/s Jyoti Structures Limited	Transmission line	24.52
	2018-19	M/s Jyoti Structures Limited	Transmission line	1.87
	2018-19	M/s L&T Limited	Sub-station	94.98
	2018-19	M/s L&T Limited	PLCC	6.06
		TOTAL		171.51

53. We have considered the submissions made by the Petitioner. ACE claimed during the 2014-19 period has been allowed under Regulations 14(1)(i) and 14(1)(ii) of the 2014 Tariff Regulations as it is on account of balance and retention payments due to undischarged liability for works executed within the cut-off date/ work deferred for execution. The entitled un-discharged IDC liability as on COD has been allowed as ACE during the year of its discharge. Therefore, ACE allowed for the 2014-19 tariff period in respect of the transmission assets is as follows:



(₹ in lakh)

Asset	Particulars	ACE allowed during			Total ACE
		2016-17	2017-18	2018-19	
Asset-1(a)	ACE	169.13	105.42	250.84	611.35
	IDC Discharged	85.96	0.00	0.00	
	Total	255.09	105.42	250.84	
Asset-1(b)	ACE	16.06	28.02	127.43	208.18
	IDC Discharged	36.67	0.00	0.00	
	Total	52.73	28.02	127.43	
Grand Total		307.82	133.44	378.27	819.53

54. Accordingly, the capital cost considered for the 2014-19 period is as follows:

(₹ in lakh)

Asset	Capital Cost as on COD	ACE			Capital Cost as on 31.3.2019
		2016-17	2017-18	2018-19	
Asset-1(a)	4142.65	255.09	105.42	250.84	4754.00
Asset-1(b)	1606.48	52.73	28.02	127.43	1814.66

55. The Petitioner has submitted that in Petition No. 203/TT/2016, combined tariff for Asset-1(a) and Asset-1(b) was allowed. However, in the instant true-up petition separate trued-up tariff in respect of Asset-1(a) and Asset-1(b) for the 2014-19 period has been claimed. Accordingly, separate trued-up tariff has been allowed for the 2014-19 tariff period in this order.

Debt-Equity Ratio

56. The Petitioner has claimed the debt-equity ratio of 70:30 as on COD. The debt-equity ratio has been allowed in accordance with Regulation 19 of the 2014 Tariff Regulations. The debt-equity ratio of 70:30 has been considered for ACE allowed during the 2014-19 period in accordance with Regulation 19(3) of the 2014 Tariff Regulations. Accordingly, the details of the debt and equity as on COD and on 31.3.2019 in respect of the transmission assets considered for the purpose of truing up of tariff for the 2014-19 tariff period are as follows:



Asset-1(a)				
Funding	Capital Cost (as on COD)		Capital Cost (as on 31.3.2019)	
	Amount (₹ in lakh)	%age	Amount (₹ in lakh)	%age
Debt	2899.86	70.00	3327.80	70.00
Equity	1242.80	30.00	1426.20	30.00
Total	4142.65	100.00	4754.00	100.00

Asset-1(b)				
Funding	Capital Cost (as on COD)		Capital Cost (as on 31.3.2019)	
	Amount (₹ in lakh)	%age	Amount (₹ in lakh)	%age
Debt	1124.54	70.00	1270.26	70.00
Equity	481.94	30.00	544.40	30.00
Total	1606.48	100.00	1814.66	100.00

Depreciation

57. The Gross Block during the 2014-19 tariff period has been depreciated at Weighted Average Rate of Depreciation (WAROD). WAROD at Annexure-I has been worked out after considering the depreciation rates of assets as specified in the 2014 Tariff Regulations and the trued-up depreciation allowed in respect of the transmission assets during the 2014-19 period is as follows:

Particulars	(₹ in lakh)		
	2016-17 (pro-rata 142 days)	2017-18	2018-19
Opening Gross Block	4142.65	4397.74	4503.16
ACE	255.09	105.42	250.84
Closing Gross Block	4397.74	4503.16	4754.00
Average Gross Block	4270.20	4450.45	4628.58
Weighted Average Rate of Depreciation (%)	5.23	5.23	5.23
Balance useful life at the beginning of the year (Year)	33	33	32
Elapsed Life at the beginning of the year (Year)	0	0	1
Aggregated Depreciable Value	3843.18	4005.41	4165.72
Depreciation during the year	86.87	232.80	242.26
Aggregate Cumulative Depreciation at the end of the year	86.87	319.67	561.93
Remaining Aggregate Depreciable Value at	3756.30	3685.73	3603.79



the end of year			
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(₹ in lakh)

Particulars	Asset-1(b)		
	2016-17 (pro-rata 50 days)	2017-18	2018-19
Opening Gross Block	1606.48	1659.21	1687.23
ACE	52.73	28.02	127.43
Closing Gross Block	1659.21	1687.23	1814.66
Average Gross Block	1632.85	1673.22	1750.95
Weighted Average Rate of Depreciation (in %)	5.15	5.15	5.16
Balance useful life at the beginning of the year (Year)	31	31	30
Lapsed Life at the beginning of the year (Year)	0	0	1
Aggregated Depreciable Value	1469.56	1505.90	1575.85
Depreciation during the year	11.51	86.16	90.30
Aggregate Cumulative Depreciation at the end of the year	11.51	97.68	187.97
Remaining Aggregate Depreciable Value at the end of year	1458.05	1408.22	1387.88

Interest on Loan (IoL)

58. The Petitioner has claimed Weighted Average Rate of Interest (WAROI) on loan, based on its actual loan portfolio and rate of interest. We have considered the submissions of the Petitioner. Accordingly, IoL has been calculated based on actual interest rates submitted by the Petitioner in accordance with Regulation 26 of the 2014 Tariff Regulations. The trued-up IoL allowed in respect of the transmission assets is as follows:

(₹ in lakh)

Particulars	Asset-1(a)		
	2016-17 (pro-rata 142 days)	2017-18	2018-19
Gross Normative Loan	2899.86	3078.42	3152.21
Cumulative Repayments upto Previous Year	0.00	86.87	319.67
Net Loan-Opening	2899.86	2991.54	2832.54
Additions	178.56	73.79	175.59
Repayment during the year	86.87	232.80	242.26
Net Loan-Closing	2991.54	2832.54	2765.87
Average Loan	2945.70	2912.04	2799.20



Weighted Average Rate of Interest on Loan (in %)	8.6405	8.3787	8.0812
Interest on Loan	99.02	243.99	226.21

(₹ in lakh)

Particulars	Asset-1(b)		
	2016-17 (pro-rata 50 days)	2017-18	2018-19
Gross Normative Loan	1124.54	1161.45	1181.06
Cumulative Repayments upto Previous Year	0.00	11.51	97.68
Net Loan-Opening	1124.54	1149.93	1083.38
Additions	36.91	19.61	89.20
Repayment during the year	11.51	86.16	90.30
Net Loan-Closing	1149.93	1083.38	1082.29
Average Loan	1137.23	1116.66	1082.84
Weighted Average Rate of Interest on Loan (in %)	8.8636	8.8410	8.7702
Interest on Loan	13.81	98.72	94.97

Return on Equity (RoE)

59. The Petitioner has claimed RoE in respect of the transmission assets in terms of Regulations 24 and 25 of the 2014 Tariff Regulations. The Petitioner has submitted that it is liable to pay income tax at Minimum Alternate Tax (MAT) rates and has claimed the effective tax rates for the 2014-19 tariff period as follows:

Year	Claimed effective tax (in %)	Grossed-up RoE (in %) [(Base Rate/(1-t))]
2014-15	21.018	19.624
2015-16	21.382	19.715
2016-17	21.338	19.704
2017-18	21.337	19.704
2018-19	21.549	19.757

60. We have considered the submissions of the Petitioner. The Commission in order dated 27.4.2020 in Petition No. 274/TT/2019 had arrived at the effective tax rates for the Petitioner based on the notified MAT rates and the same are as follows:

Year	Notified MAT rates (in %) (inclusive of surcharge & cess)	Effective tax (in %)
2014-15	20.961	20.961
2015-16	21.342	21.342
2016-17	21.342	21.342



2017-18	21.342	21.342
2018-19	21.549	21.549

61. MAT rates considered in order dated 27.4.2020 for the purpose of grossing up of rate of RoE for truing up of the tariff of the 2014-19 tariff period in terms of the provisions of the 2014 Tariff Regulations is considered in the instant case which is as follows:

Year	Notified MAT rates (in %) (inclusive of surcharge & cess)	Base rate of RoE (in %)	Grossed-up RoE (in %) [(Base Rate)/(1-t)]
2014-15	20.961	15.50	19.610
2015-16	21.342	15.50	19.705
2016-17	21.342	15.50	19.705
2017-18	21.342	15.50	19.705
2018-19	21.549	15.50	19.758

62. The Petitioner has claimed RoE for the 2014-19 period after grossing up RoE of 15.50% with Effective Tax rates (based on MAT rates) each year as per Regulation 25(3) of the 2014 Tariff Regulations. RoE is trued-up on the basis of MAT rates applicable for the respective years and is allowed in respect of the transmission assets for the 2014-19 tariff period as follows:

Particulars	Asset-1(a)		
	2016-17 (pro-rata 142 days)	2017-18	2018-19
Opening Equity	1242.80	1319.32	1350.95
Additions	76.53	31.63	75.25
Closing Equity	1319.32	1350.95	1426.20
Average Equity	1281.06	1335.14	1388.57
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500
MAT Rate for respective year (in %)	21.342	21.342	21.549
Rate of Return on Equity (in %)	19.705	19.705	19.758
Return on Equity	98.21	263.09	274.35



(₹ in lakh)

Particulars	Asset-1(b)		
	2016-17 (pro-rata 50 days)	2017-18	2018-19
Opening Equity	481.94	497.76	506.17
Additions	15.82	8.41	38.23
Closing Equity	497.76	506.17	544.40
Average Equity	489.85	501.97	525.28
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500
MAT Rate for respective year (in %)	21.342	21.342	21.549
Rate of Return on Equity (in %)	19.705	19.705	19.758
Return on Equity	13.22	98.91	103.79

Operation & Maintenance Expenses (O&M Expenses)

63. The total O&M Expenses as claimed by the Petitioner in respect of the transmission assets are as follows:

Asset-1(a)			
O&M Expenses	2016-17 (pro-rata 142 days)	2017-18	2018-19
Sub-station - Allahabad: Meja-I			
400 kV bays	1	1	1
Transmission Line: Ckt.-I of Meja-Allahabad D/C [S/C (Twin/Triple Conductor)]			
Line Length (in kms)	28.920	28.920	28.920
Total O&M Expenses (₹ in lakh)	28.19	66.51	68.71

Asset-1(b)			
O&M Expenses	2016-17 (pro-rata 50 days)	2017-18	2018-19
Sub-station - Allahabad: Meja-II			
400 kV bays	1	1	1
Transmission Line: 400 kV D/C Meja-Allahabad D/C (Twin/Triple Conductor)			
Line Length (in kms)	28.920	28.920	28.920
Total O&M Expenses (₹ in lakh)	11.81	89.07	92.02

64. The Petitioner has claimed O&M Expenses in respect of Asset-1(a) (from 10.11.2016 to 9.2.2017) under S/C (Twin/Triple Conductor) category and after 9.2.2017, O&M Expenses for Asset-1(a) has been claimed along with Asset-1(b) under D/C (Twin/Triple Conductor) category.



65. We have considered the submissions of the Petitioner. Regulation 29(3) of the 2014 Tariff Regulations specifies the norms for O&M Expenses for the transmission system. The norms specified in respect of the elements covered under the transmission assets are as follows:

Particulars	Unit of measure	2016-17	2017-18	2018-19
Bays				
400 kV bays	(₹ lakh per bay)	64.37	66.51	68.71
Transmission Line				
S/C (Twin/Triple Conductor)	(₹ lakh per km)	0.432	0.446	0.461
D/C (Twin/Triple Conductor)	(₹ lakh per km)	0.755	0.780	0.806

66. COD of Asset-1(b) was 10.2.2017. Therefore, Meja-Allahabad Transmission Line is in effect operational as a double circuit line from COD of Asset-1(b). Therefore, O&M Expenses with respect to Single Circuit of Meja-Allahabad Transmission Line, as part of Asset-1(a), are being allowed from COD of Asset-1(a) (10.11.2016) to COD of Asset-1(b) (10.2.2017) i.e. for 92 days and thereafter, O&M expenses for Double Circuit line of Meja-Allahabad Transmission Line are being allowed in Asset-1(b). The O&M Expenses are allowed in respect of the transmission assets as per the norms specified in the 2014 Tariff Regulations and are as follows:

Asset-1(a)			
O&M Expenses	2016-17 (pro-rata 142 days)	2017-18	2018-19
Sub-station: Allahabad: Meja-I			
400 kV bays	1	1	1
Transmission Line: Ckt.-I of Meja-Allahabad D/C [S/C (Twin/Triple Conductor)]			
Line Length (in kms)	28.920	28.920	28.920
Total O&M Expense (₹ in lakh)	28.19	66.51	68.71

O&M Expenses	Asset-1(b)		
	2016-17 (pro-rata 50 days)	2017-18	2018-19
Sub-station: Allahabad: Meja-II			
400 kV bays	1	1	1
Transmission Line:			



400 kV D/C Meja-Allahabad (D/C (Twin/Triple Conductor))			
Line Length (in kms)	28.920	28.920	28.920
Total O&M Expenses (₹ in lakh)	11.81	89.07	92.02

Interest on Working Capital

67. IWC has been worked out as per the methodology provided in Regulation 28 of the 2014 Tariff Regulations and the trued-up IoL allowed in respect of the transmission assets for the 2014-19 tariff period is as follows:

(₹ in lakh)

Particulars	Asset-1(a)		
	2016-17 (pro-rata 142 days)	2017-18	2018-19
WC for O&M Expenses (O&M Expenses for one Month)	6.41	5.54	5.73
WC for Maintenance Spares (15% of O&M Expenses)	11.53	9.98	10.31
WC for Receivables (Equivalent to two months of annual fixed costs/annual transmission charges)	137.09	137.67	138.55
Total Working Capital	155.03	153.19	154.58
Rate of Interest (in %)	12.80	12.80	12.80
Interest on working capital	7.72	19.61	19.79

(₹ in lakh)

Particulars	Asset-1(b)		
	2016-17 (pro-rata 50 days)	2017-18	2018-19
WC for O&M Expenses (O&M Expenses for one Month)	7.18	7.42	7.67
WC for Maintenance Spares (15% of O&M Expenses)	12.93	13.36	13.80
WC for Receivables (Equivalent to two months of annual fixed costs/annual transmission charges)	63.04	63.95	65.36
Total Working Capital	83.15	84.73	86.84
Rate of Interest (in %)	12.80	12.80	12.80
Interest on Working Capital	1.46	10.85	11.11

Approved Annual Fixed Charges for the 2014-19 Period

68. The trued-up Annual Fixed Charges (AFC) in respect of the transmission assets for the 2014-19 tariff period and the asset-wise comparison between Annual Fixed Charges as allowed earlier, as claimed by the Petitioner and as approved after truing up in the instant order are shown in the tables below:



(₹ in lakh)

Particulars	Asset-1(a)		
	2016-17 (pro-rata 142 days)	2017-18	2018-19
Depreciation	86.87	232.80	242.26
Interest on Loan	99.02	243.99	226.21
Return on Equity	98.21	263.09	274.35
O&M Expenses	28.19	66.51	68.71
Interest on Working Capital	7.72	19.61	19.79
Total	320.01	826.00	831.32

(₹ in lakh)

Particulars	Asset-1(b)		
	2016-17 (pro-rata 50 days)	2017-18	2018-19
Depreciation	11.51	86.16	90.30
Interest on Loan	13.81	98.72	94.97
Return on Equity	13.22	98.91	103.79
O&M Expenses	11.81	89.07	92.02
Interest on Working Capital	1.46	10.85	11.11
Total	51.81	383.71	392.18

69. Accordingly, the Annual Transmission Charges in respect of the transmission assets as allowed vide order dated 5.10.2017 in Petition No. 203/TT/2016, claimed by the Petitioner in the instant petition and approved after truing up in the instant order are as follows:

(₹ in lakh)

Particulars	Asset-1(a)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 5.10.2017 in Petition No. 203/TT/2016	-	-	142.05	0.00	0.00
Claimed by the Petitioner in the instant petition	-	-	320.07	825.99	831.33
Approved after true-up in this order	-	-	320.01	826.00	831.32

(₹ in lakh)

Particulars	Asset-1(b)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 5.10.2017 in Petition No. 203/TT/2016	-	-	155.77	1099.33	1079.26



Claimed by the Petitioner in the instant petition	-	-	51.82	383.71	392.19
Approved after true-up in this order	-	-	51.81	383.71	392.18

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

70. The Petitioner has combined Asset-1(a) and Asset-1(b) for claiming tariff during the 2019-24 period into Combined Asset. The details of the transmission charges as claimed by the Petitioner in respect of Combined Asset for the 2019-24 tariff period are as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	344.17	345.72	345.72	345.72	345.72
Interest on Loan	311.13	283.45	254.32	225.19	195.99
Return on Equity	371.75	373.39	373.39	373.39	373.39
O&M Expenses	91.83	94.99	98.25	101.62	105.11
Interest on Working Capital	19.45	19.26	18.97	18.67	18.34
Total	1138.33	1116.81	1090.65	1064.59	1038.55

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

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	7.65	7.92	8.19	8.47	8.76
Maintenance Spares	13.77	14.25	14.74	15.24	15.77
Receivables	139.96	137.69	134.46	131.25	127.69
Total Working Capital	161.38	159.86	157.39	154.96	152.22
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	19.45	19.26	18.97	18.67	18.34

72. UPPCL vide affidavit dated 23.7.2021 has submitted that the tariff proposal for the 2019-24 period is likely to get affected in light of submissions made by it for trueing up of tariff of the 2014-19 period. In the preceding paragraphs, we have already dealt with the submissions made by the Respondent and the clarifications thereto submitted by the Petitioner with regard to the application for grant of transmission tariff for the 2019-24 tariff period which are not repeated herewith for the sake of brevity.



Effective Date of Commercial Operation (E-COD)

73. The Petitioner has claimed E-COD in respect of Combined Asset as 5.12.2016. Based on the capital cost and actual COD of the individual assets, same E-COD has been worked out as follows:

Asset	Admitted Capital Cost (as on 31.3.2019)	COD	Number of days from last COD	Weightage of cost (%)	Weighted days	E-COD (Latest COD - Total weighted Days)
	(₹ in lakh)					
Asset-1(a)	4754.00	10.11.2016	92.00	72.37	66.58	5.12.2016
Asset-1(b)	1814.66	10.2.2017	0.00	27.63	0.00	
Total	6568.66			100	66.58	

74. E-COD is used to determine the lapsed life of the project as a whole which works out as 02 (two) year as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from E-COD).

Weighted Average Life (WAL)

75. The life as defined in Regulation 33 of the 2019 Tariff Regulations has been considered for determination of WAL. 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 WAL has been used as the useful life of the project as a whole.

76. WAL has been determined based on the admitted capital cost of individual elements as on 31.3.2019 and their respective useful life as specified in the 2019 Tariff Regulations. Accordingly, WAL of Combined Asset has been worked out as 33 years as follows:



Particulars	Capital Cost (as on 31.3.2019) (₹ in lakh) (1)	Life (in years) (2)	Weighted Cost (₹ in lakh) (3) = (1) x (2)	Weighted Average Life of Combined Asset (in years) (4) = (3)/ (1)
Building & Civil Works	270.18	25	6754.48	32.58 (rounded off to 33 years)
Transmission Line	5081.79	35	177862.66	
Sub-station	1117.82	25	27945.60	
PLCC	98.87	15	1483.00	
Total	6568.66		214045.74	

77. WAL as on 1.4.2019 as determined above is applicable prospectively (i.e. for 2019-24 tariff period onwards) and no retrospective adjustment of depreciation in previous tariff period is required to be done. As discussed above, E-COD of Combined asset is 5.12.2016 and the lapsed life of the project as a whole works out as 02 years as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from E-COD). Accordingly, WAL has been used to determine the remaining useful life as on 31.3.2019 to be 31 years.

Capital Cost

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

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

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

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



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

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

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

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

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

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

- (a) The assets forming part of the project, but not in use, as declared in the tariff



- petition;*
- (b) *De-capitalised Assets after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:*

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

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

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

79. The Petitioner has claimed a capital cost of ₹6568.66 lakh as on 31.3.2019 for the Combined Asset. The same capital cost of ₹6568.66 lakh has been admitted as on 31.3.2019 for the Combined Asset and has been considered as the opening capital cost as on 1.4.2019 for determination of tariff in accordance with Regulation 19 of the 2019 Tariff Regulations.

Additional Capital Expenditure

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

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

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

- (a) *Undischarged liabilities recognized to be payable at a future date;*
- (b) *Works deferred for execution;*
- (c) *Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 23 of these regulations;*
- (d) *Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority or order or decree of any court of law;*
- (e) *Change in law or compliance of any existing law; and*
- (f) *Force Majeure events:*

Provided that in case of any replacement of the assets, the additional capitalization shall



be worked out after adjusting the gross fixed assets and cumulative depreciation of the assets replaced on account of de-capitalization.

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

81. The Petitioner has projected ACE of ₹58.00 lakh for 2019-20 in respect of Asset-1(b) on account of balance and retention payments due to undischarged liability for works executed within cut-off date/ work deferred for execution and has submitted the admissibility of ACE (after COD and up to cut-off date) under Regulations 24(1)(a) and 24(1)(b) of the 2019 Tariff Regulations.

82. The details of ACE claimed in respect of Asset-1(b) for 2019-20 (package and vendor wise) has been submitted by the Petitioner vide affidavit dated 15.2.2021 as follows:

Year	Vendor Name	Package	Amount (₹ in lakh)
2019-20	M/s L&T Limited	Sub-station	54.44
	M/s L&T Limited	PLCC	3.56
	Total		58.00

83. We have considered the submissions made by the Petitioner. ACE claimed by the Petitioner in respect of Asset-1(b) for 2019-20 is allowed under Regulation 24(1)(a) of the 2019 Tariff Regulations, as it is towards liabilities for works executed prior to the cut-off date. Accordingly, capital cost as on 31.3.2024 in respect of Combined Asset is considered as follows:

Admitted Capital Cost (as on 1.4.2019)	Admitted ACE	Capital Cost (as on 31.3.2024)
	2019-20	
6568.66	58.00	6626.66

Debt-Equity Ratio

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

“18. Debt-Equity Ratio: (1) For new projects, the debt-equity ratio of 70:30 as on date



of commercial operation shall be considered. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

Provided that:

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

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

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

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

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

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

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

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



85. The debt-equity considered for the purpose of computation of tariff in respect of Combined Asset for the 2019-24 tariff period is as follows:

Funding	Capital Cost (as on 1.4.2019) (₹ in lakh)	(in %)	Capital Cost (as on 31.3.2024) (₹ in lakh)	(in %)
Debt	4598.06	70.00	4638.66	70.00
Equity	1970.60	30.00	1988.00	30.00
Total	6568.66	100.00	6626.66	100.00

Depreciation

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

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

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

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

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

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

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

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

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



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

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

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

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

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

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

87. The Gross Block during the 2019-24 tariff period has been depreciated at WAROD. WAROD at Annexure-II has been worked out after considering the depreciation rates of assets as prescribed in the 2019 Tariff Regulations. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation up to 31.3.2019. The depreciation allowed in respect of Combined Asset for the 2019-24 tariff period is as follows:

Particular	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	6568.66	6626.66	6626.66	6626.66	6626.66
Addition during the year 2019-24 due to projected ACE	58.00	0.00	0.00	0.00	0.00
Closing Gross Block	6626.66	6626.66	6626.66	6626.66	6626.66
Average Gross Block	6597.66	6626.66	6626.66	6626.66	6626.66
Weighted average rate of Depreciation (WAROD) (in %)	5.22	5.22	5.22	5.22	5.22



Balance useful life at the beginning of the year (Year)	31	30	29	28	27
Lapsed life (Year)	2	3	4	5	6
Aggregated Depreciable Value	5937.89	5963.99	5963.99	5963.99	5963.99
Combined Depreciation during the year	344.17	345.72	345.72	345.72	345.72
Aggregate Cumulative Depreciation at the end of the year	1094.08	1439.80	1785.52	2131.24	2476.96
Remaining Aggregated Depreciable Value at the end of the year	4843.82	4524.20	4178.48	3832.75	3487.03

Interest on Loan

88. 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.*

- *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.*
- *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.*
- *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.*
- *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.

- *The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.*
- *The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing.”*



89. The Petitioner has submitted that WAROI on loan has been calculated on the basis of interest rates prevailing as on 1.4.2019 for respective loans. The Petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, during the 2019-24 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true up.

90. We have considered the submissions of the Petitioner regarding IoL. Floating rate of interest, if any, shall be considered at the time of true up. Therefore, IoL has been allowed in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL allowed in respect of Combined Asset for the 2014-19 tariff period is as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	4598.06	4638.66	4638.66	4638.66	4638.66
Cumulative Repayments upto Previous Year	749.90	1094.08	1439.80	1785.52	2131.24
Net Loan-Opening	3848.16	3544.59	3198.86	2853.14	2507.42
Additions	40.60	0.00	0.00	0.00	0.00
Repayment during the year	344.17	345.72	345.72	345.72	345.72
Net Loan-Closing	3544.59	3198.86	2853.14	2507.42	2161.70
Average Loan	3696.37	3371.73	3026.00	2680.28	2334.56
Weighted Average Rate of Interest on Loan (in %)	8.4173	8.4066	8.4044	8.4016	8.3952
Interest on Loan	311.14	283.45	254.32	225.19	195.99

Return on Equity

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

“30. Return on Equity: (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with Regulation 18 of these regulations.

(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating station, transmission system including communication system and run-of-river hydro generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run-of-river generating station with pondage:



Provided that return on equity in respect of additional capitalization after cut-off date beyond the original scope shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission system

Provided further that:

- i. In case of a new project, the rate of return on equity shall be reduced by 1.00% for such period as may be decided by the Commission, if the generating station or transmission system is found to be declared under commercial operation without commissioning of any of the Restricted Governor Mode Operation (RGMO) or Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system based on the report submitted by the respective RLDC;*
- ii. in case of existing generating station, as and when any of the requirements under (i) above of this Regulation are found lacking based on the report submitted by the concerned RLDC, rate of return on equity shall be reduced by 1.00% for the period for which the deficiency continues;*
- iii. in case of a thermal generating station, with effect from 1.4.2020:*
 - a) rate of return on equity shall be reduced by 0.25% in case of failure to achieve the ramp rate of 1% per minute;*
 - b) an additional rate of return on equity of 0.25% shall be allowed for every incremental ramp rate of 1% per minute achieved over and above the ramp rate of 1% per minute, subject to ceiling of additional rate of return on equity of 1.00%:*

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

“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:*

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

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

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

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

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

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

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

92. The Petitioner has submitted that it is liable to pay Income Tax at MAT rate prescribed under the Taxation laws (Amendment) Ordinance 2019. Further, RoE has been calculated @18.782% after grossing up the RoE with MAT rate of 17.472% (Base Rate 15% + Surcharge 12% + Cess 4%) based on the formula given in Regulation 31(2) of the 2019 Tariff Regulations for the 2019-24 tariff period. As per Regulation 31(3) of the 2019 Tariff Regulations, the grossed-up rate of RoE at the end of every financial year shall be trued up 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 IT authorities pertaining to 2019-24 tariff period on actual gross income. However, if any penalty 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 RoE after truing up shall be recovered or



refunded to beneficiaries or the long term customers on yearly basis. The Petitioner has further submitted that any adjustment due to additional tax demand including interest duly adjusted for any refund of tax including interest received from IT authorities shall be recoverable/ adjustable during the 2019-24 tariff period on yearly basis on receipt of Income Tax assessment order.

93. We have considered the submissions of the Petitioner. MAT rate applicable in 2019-20 has been considered for the purpose of grossing up RoE, which shall be trued-up with actual tax rate in accordance with Regulation 31(3) of the 2019 Tariff Regulations. RoE allowed for the transmission system under Regulation 30 of the 2019 Tariff Regulations is as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	1970.60	1988.00	1988.00	1988.00	1988.00
Additions	17.40	0.00	0.00	0.00	0.00
Closing Equity	1988.00	1988.00	1988.00	1988.00	1988.00
Average Equity	1979.30	1988.00	1988.00	1988.00	1988.00
Return on Equity (Base Rate) (in %)	15.50	15.50	15.50	15.50	15.50
MAT Rate for respective year (in %)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (in %)	18.782	18.782	18.782	18.782	18.782
Return on Equity	371.75	373.39	373.39	373.39	373.39

Operation & Maintenance Expenses

94. The O&M Expenses as claimed by the Petitioner in respect of various elements covered under Combined Asset for the 2019-24 period are as follows:

	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses					
Sub-station:					
Allahabad: Meja-I					
Allahabad: Meja-II					
400 kV bays	2	2	2	2	2
O&M claimed	64.30	66.56	68.90	71.32	73.82
Transmission Lines:					
400 kV D/C Meja-Allahabad Double Circuit (Twin Conductor)					



Line Length (in kms)	28.920	28.920	28.920	28.920	28.920
O&M Expenses claimed	25.48	26.38	27.30	28.25	29.24
PLCC					
Original Capital Cost (₹ in lakh)	102.42	102.42	102.42	102.42	102.42
O&M Expenses claimed	2.05	2.05	2.05	2.05	2.05
Total O&M Expenses (₹ in lakh)	91.83	94.99	98.25	101.62	105.11

95. Regulations 35(3)(a) and 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
<i>Norms for sub-station Bays (₹ Lakh per bay)</i>					
765 kV	45.01	46.60	48.23	49.93	51.68
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84
132 kV and below	16.08	16.64	17.23	17.83	18.46
<i>Norms for Transformers (₹ Lakh per MVA)</i>					
765 kV	0.491	0.508	0.526	0.545	0.564
400 kV	0.358	0.371	0.384	0.398	0.411
220 kV	0.245	0.254	0.263	0.272	0.282
132 kV and below	0.245	0.254	0.263	0.272	0.282
<i>Norms for AC and HVDC lines (₹ Lakh per km)</i>					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773
<i>Norms for HVDC stations</i>					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	834	864	894	925	958



Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<i>Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)</i>	1,666	1,725	1,785	1,848	1,913
<i>500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)</i>	2,252	2,331	2,413	2,498	2,586
<i>±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)</i>	2,468	2,555	2,645	2,738	2,834
<i>±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)</i>	1,696	1,756	1,817	1,881	1,947
<i>±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)</i>	2,563	2,653	2,746	2,842	2,942

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

Provided further that:

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

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



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

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

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

96. We have considered the submissions of the Petitioner. The Petitioner has claimed O&M Expenses separately for PLCC under Regulation 35(4) of the 2019 Tariff Regulation @2% of its original project cost in the instant petition and the Petitioner has made similar claim in other petitions as well. Though PLCC is a communication system, it has been considered as part of the sub-station in the 2014 Tariff Regulation and the 2019 Tariff Regulations and the norms for sub-station has been specified accordingly. Accordingly, the Commission vide order dated 24.1.2021 in Petition No. 126/TT/2020 has already concluded that no separate O&M Expenses can be allowed for PLCC under Regulation 35(4) of the 2019 Tariff Regulations even though PLCC is a communication system. Therefore, the Petitioner’s claim for separate O&M Expenses for PLCC @2% is not allowed.

97. The O&M Expenses allowed in respect of various elements covered under Combined Asset for the 2019-24 tariff period are as follows:

	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses					
Sub-station:					
Allahabad: Meja-I					
Allahabad: Meja-II					
400 kV bays	2	2	2	2	2
Transmission Lines:					
400 kV D/C Meja-Allahabad Double Circuit (Twin Conductor)					
Line Length (in kms)	28.920	28.920	28.920	28.920	28.920
Total O&M Expenses (₹ in lakh)	89.78	92.94	96.20	99.57	103.06



Interest on Working Capital

98. 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. Definitions....

(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;”

99. The Petitioner has submitted that it has computed IWC for the 2019-24 tariff period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of IWC as 12.05%.

100. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The Rate of Interest (ROI) considered is 12.05% (SBI 1 year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20, ROI for 2020-21 has been considered as 11.25% (SBI 1 year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points), whereas ROI for 2021-22 onwards has been considered



as 10.50% (SBI 1 year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points). Therefore, IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations and the components of the working capital and interest thereon allowed are as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
WC for O&M Expenses (O&M Expenses for 1 month)	7.48	7.74	8.02	8.30	8.59
WC for Maintenance Spares (15% of O&M Expenses)	13.47	13.94	14.43	14.94	15.46
WC for Receivables (Equivalent to 45 days of annual fixed cost/annual transmission charges)	139.70	137.27	133.90	130.69	127.13
Total Working Capital	160.64	158.95	156.34	153.92	151.18
Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
Interest on Working Capital	19.36	17.88	16.42	16.16	15.87

Annual Fixed Charges of the 2019-24 Tariff Period

101. The transmission charges allowed in respect of Combined Asset for the 2019-24 tariff period are as below:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	344.17	345.72	345.72	345.72	345.72
Interest on Loan	311.14	283.45	254.32	225.19	195.99
Return on Equity	371.75	373.39	373.39	373.39	373.39
O&M Expenses	89.78	92.94	96.20	99.57	103.06
Interest on Working Capital	19.36	17.88	16.42	16.16	15.87
Total	1136.19	1113.37	1086.04	1060.03	1034.03

Filing Fee and the Publication Expenses

102. The Petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses. The Petitioner shall be entitled for reimbursement of the filing fees and publication expenses in connection with the present petition, directly from the beneficiaries on pro-rata basis in accordance with Regulation 70(1) of the 2019 Tariff Regulations.



Licence Fee & RLDC Fees and Charges

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

Goods and Services Tax

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

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

Security Expenses

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

107. We have considered the submissions and prayer of the Petitioner regarding security expenses and observes that the Petitioner has claimed consolidated security expenses for all the transmission assets owned by it on projected basis for the 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19 in Petition No. 260/MP/2020. The Commission vide order dated 3.8.2021 in Petition No. 260/MP/2020 approved security expenses from 1.4.2019 to



31.3.2024. Therefore, security expenses will be shared in terms of the order dated 3.8.2021 in Petition No. 260/MP/2020. accordingly, the Petitioner's prayer in the instant petition for allowing it to file a separate petition for claiming the overall security expenses and consequential IWC has become infructuous.

Capital Spares

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

Sharing of Transmission Charges

109. The Petitioner vide affidavit dated 20.7.2021 has submitted that the transmission charges have been billed as per the Commission's direction in order dated 7.11.2019 in Petition No. 203/TT/2016. Further, the Petitioner submitted that 1st unit and 2nd unit of MUNPL were put into commercial operation on 30.4.2019 and 31.1.2021 respectively. Therefore, as per the direction given by the Commission, 100% billing was done on MUPNL till 29.4.2019 and 50% billing was done on MUNPL from 30.4.2019 to 30.1.2021 and thereafter, transmission charges were billed in POC pool.

110. We have considered the submissions of the Petitioner. The Commission vide order dated 7.11.2019 in Petition No. 203/TT/2016 had held as follows:

"25. Accordingly, the transmission charges from the COD of Circuit I and II of the transmission line, i.e. 10.11.2016 and 10.2.2017 respectively, till the date of start of LTA of Meja TPS shall be borne by MUNPL under Regulation 8(8) of Central Electricity Regulatory Commission (Grant of Connectivity, Long-term Access and Medium-term Open Access in inter-State Transmission and related matters) Regulations, 2009. Thereafter, the transmission charges shall be shared as per the provisions of Central Electricity Regulatory Commission (Sharing of inter-State Regulations Transmission Charges and Losses) Regulations, 2010 as detailed herein. In line with order dated 6.11.2018 in Petition No. 261/MP/2017, post COD of first unit of MUNPL, 50% transmission charges of the instant transmission system shall be borne by MUNPL till COD of its second unit and balance shall be included under PoC pool. Post COD of 2nd unit of MUNPL, the transmission charges for the instant transmission system shall be included in POC pool."



111. Accordingly, the transmission charges will be shared as per the order dated 7.11.2019 in Petition No. 203/TT/2016. With effect from 1.11.2020 (after repeal of the 2010 Sharing Regulations), sharing of transmission charges is governed by the provisions of the 2020 Sharing Regulations. Accordingly, the liabilities of DICs for arrears of transmission charges determined through this order shall be computed DIC-wise in accordance with the provisions of respective Sharing Regulations shall be recovered from the concerned DICs through Bills under Regulation 15(2)(b) of the 2020 Sharing Regulations. Billing, collection and disbursement of transmission charges for subsequent period shall be recovered in terms of provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.

112. To summarise:

- a) The trued-up AFC approved in respect of the transmission assets for the 2014-19 tariff period are as follows:

Asset	(₹ in lakh)		
	2016-17 (pro-rata 142 days)	2017-18	2018-19
Asset-1(a)	320.01	826.00	831.32

Asset	(₹ in lakh)		
	2016-17 (pro-rata 142 days)	2017-18	2018-19
Asset-1(b)	51.81	383.71	392.18

- b) AFC allowed in respect of Combined Asset for the 2019-24 tariff period in this order are as follows:

(₹ in lakh)				
2019-20	2020-21	2021-22	2022-23	2023-24
1136.19	1113.37	1086.04	1060.03	1034.03

113. Annexure-I and Annexure-II given hereinafter shall form part of the order.



114. This order disposes of Petition No. 719/TT/2020 in terms of the above discussions and findings.

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

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

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



Annexure-I**Asset-1(a)**

Particulars	Admitted Capital Cost as on 10.11.2016	Admitted ACE			Admitted Capital Cost as on 31.3.2019	Rate of Depreciation as per Regulations	Annual Depreciations as per Regulations		
		2016-17	2017-18	2018-19			2016-17	2017-18	2018-19
Land - Freehold	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00	0.00
Land - Leasehold	0.00	0.00	0.00	0.00	0.00	3.34%	0.00	0.00	0.00
Building Civil Works & Colony	132.34	2.75	0.00	0.00	135.09	3.34%	4.47	4.51	4.51
Transmission Line	3549.09	242.77	105.42	99.29	3996.57	5.28%	193.80	202.99	208.40
Sub Station	420.48	8.72	0.00	141.93	571.13	5.28%	22.43	22.66	26.41
PLCC	40.74	0.85	0.00	9.62	51.21	6.33%	2.61	2.63	2.94
IT Equipment (Incl. Software)	0.00	0.00	0.00	0.00	0.00	5.28%	0.00	0.00	0.00
Total	4142.65	255.09	105.42	250.84	4754.00		223.30	232.80	242.26
Average Gross Block							4270.20	4450.45	4628.58
Weighted Average Rate of Depreciation							5.39%	5.55%	5.54%

Asset-1(b)

Particulars	Admitted Capital Cost as on 10.2.2017	Admitted ACE			Admitted Capital Cost as on 31.3.2019	Rate of Depreciation as per Regulations	Annual Depreciations as per Regulations		
		2016-17	2017-18	2018-19			2016-17	2017-18	2018-19
Land - Freehold	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00	0.00
Land - Leasehold	0.00	0.00	0.00	0.00	0.00	3.34%	0.00	0.00	0.00
Building Civil Works & Colony	132.08	3.01	0.00	0.00	135.09	3.34%	4.46	4.51	4.51
Transmission Line	992.10	38.71	28.02	26.39	1085.22	5.28%	53.41	55.17	56.60
Sub Station	441.64	10.08	0.00	94.98	546.70	5.28%	23.58	23.85	26.36
PLCC	40.66	0.93	0.00	6.06	47.65	6.33%	2.60	2.63	2.82
IT Equipment (Incl. Software)	0.00	0.00	0.00	0.00	0.00	5.28%	0.00	0.00	0.00
Total	1606.48	52.73	28.02	127.43	1814.66		84.05	86.16	90.30
Average Gross Block							1632.85	1673.22	1750.95
Weighted Average Rate of Depreciation							5.23%	5.32%	5.32%



Annexure-II

2019-24	Admitted Capital Cost as on 1.4.2019	Projected ACE	Admitted Capital Cost as on 31.3.2024	Rate of Depreciation as per Regulations	Annual Depreciations as per Regulations				
Particulars		2019-20			2019-20	2019-20	2020-21	2021-22	2022-23
Land - Freehold	0.00	0.00	0.00	0.00%	0.00	0.00	0.00	0.00	0.00
Land - Leasehold	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00
Building Civil Works & Colony	270.18	0.00	270.18	3.34%	9.02	9.02	9.02	9.02	9.02
Transmission Line	5081.79	0.00	5081.79	5.28%	268.32	268.32	268.32	268.32	268.32
Sub Station	1117.82	54.44	1172.26	5.28%	60.46	61.90	61.90	61.90	61.90
PLCC	98.87	3.56	102.43	6.33%	6.37	6.48	6.48	6.48	6.48
IT Equipment (Incl. Software)	0.00	0.00	0.00	15.00%	0.00	0.00	0.00	0.00	0.00
Total	6568.66	58.00	6626.66		344.17	345.72	345.72	345.72	345.72
Average Gross Block					6597.66	6626.66	6626.66	6626.66	6626.66
Weighted Average Rate of Depreciation					5.22%	5.22%	5.22%	5.22%	5.22%

