CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No. 149/TT/2020

Coram:

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

Date of order : 01.03.2021

In the Matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and revision of transmission tariff of the 2004-09 and 2009-14 tariff periods and truing up of transmission tariff of the 2014-19 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of the 2019-24 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 of **Asset-I**: 132 kV S/C Nirjuli-Dikrong Transmission Line along with associated bays and **Asset-II**: 400 kV D/C Ranganadi-Balipara Transmission Line along with associated bays under “Transmission System associated with Ranganadi HEP” in North Eastern Region.

And in the Matter of:

Power Grid Corporation of India Ltd.,
“Saudamini”, Plot No-2,
Sector-29, Gurgaon-122001,
(Haryana). **.....Petitioner**

Vs

1. Assam Electricity Grid Corporation Ltd.,
   (Formerly Assam State Electricity Board),
   Bijulee Bhawan, Paltan Bazar,
   Guwahati-781001.

2. Meghalaya Energy Corporation Ltd.,
   Short Round Road, “Lumjingshai”,
   Shillong-793001.

3. Government of Arunachal Pradesh,
   Itanagar.

4. Power and Electricity Department,
   Government of Mizoram,
   Aizawl.

5. Manipur State Electricity Distribution Company Ltd.,
   Keishampat.

6. Department of Power,
   Government of Nagaland,
   Kohima.

7. Tripura State Electricity Corporation Ltd.,
   Vidyut Bhawan, North Banamalipur,
   Agartala, Tripura (W)-799001. **...Respondents**

For Petitioner **:** Shri S. S. Raju, PGCIL

For Respondents **:** None

ORDER

The present petition has been filed by Power Grid Corporation of India Limited (hereinafter referred to as "the Petitioner"), a deemed transmission licensee, for revision of transmission tariff of the 2004-09 and 2009-14 tariff periods under relevant tariff regulations, truing 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 tariff of the 2019-24 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as "the 2019 Tariff Regulations") in respect of the following assets under "Transmission System associated with Ranganadi HEP" in North Eastern Region (hereinafter referred to as "the transmission project").

Asset-I: 132 kV S/C Nirjuli-Dikrong Transmission Line along with associated bays; and

Asset-II: 400 kV D/C Ranganadi-Balipara Transmission Line along with associated bays.

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

"1)Approve the revised Transmission Tariff for 2004-09 block and transmission tariff for 2009-14 block for the assets covered under this petition, as per para 8 above.

2) Approve the Add-cap incurred during 2014-19 and projected to be incurred during 2019-24.

3) Approve the trued up Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the assets covered under this petition, as per para 9 and 10 above.

4) (a)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 9 and 10 above for respective block.

(b) Further it is submitted that deferred tax liability before 01.04.2009 shall be recoverable from the beneficiaries or long term customers / DIC as the case may be, as and when the same is materialized as per regulation 49 of 2014 and regulation 67 of 2019 tariff regulation. The petitioner may be allow to recover the deferred tax liability materialized directly without making any application before the commission as provided in the regulation.

5) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 70 (1) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019, and other expenditure (if any) in relation to the filing of petition.

6) Allow the petitioner to adjust the cumulative depreciation by taking into account the depreciation recovered in tariff by the decapitalized asset during its useful life and to recover the unrecovered depreciation in case of Asset separately on account of de-capitalization.

7) 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.

8) 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.

9) 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 10.5 above.

10) Allow the petitioner to claim the capital spares at the end of tariff block as per actual.

11) 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."

Background

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

(a) The Investment Approval (IA) for the transmission project was accorded by Ministry of Home Affairs vide letter dated 9.4.1987 at an estimated cost of ₹4734 lakh. Subsequently, the Revised Cost Estimate (RCE) for the transmission project was approved by Ministry of Power vide its letter dated 27.8.2000 at an estimated cost of ₹17243 lakh, which included IDC of ₹3125 lakh. As per the Investment Approval (IA), the scheduled COD of the transmission project was April, 1994 while Asset-I and Asset-II were put into commercial operation on 1.10.2001 and 1.1.2003 respectively.

(b) The transmission tariff from COD of respective elements to 31.3.2007 (vide order dated 1.1.2002 in Petition No. 40/2000 and order dated 19.8.2009 in Petition No. 84/2006) was determined in accordance with Uniform Common Pool Transmission Tariff (UCPTT) agreed by beneficiaries of NER. Tariff for the period from 1.4.2007 to 31.3.2009 was determined vide order dated 7.3.2008 in Petition No. 84/2006 which was re-determined from 1.4.2004 vide order dated 19.8.2009 in view of judgment of the Appellate Tribunal of Electricity (APTEL) dated 4.11.2008 in Appeal No. 73/2008.

(c) The tariff for Asset-I was revised vide order dated 17.6.2011 in Petition No. 301/2010 consequent to refinancing of Government of India's loan through LIC–III loan. The tariff of Asset-II was revised vide order dated 20.7.2010 in Petition No. 33/2010 on account of Additional Capital Expenditure (ACE) during 2006-07, 2007-08 and 2008-09 period.

(d) The tariff for Combined Assets for the 2009-14 tariff period was allowed vide order dated 1.8.2011 in Petition No. 303/2010 in accordance with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as “the 2009 Tariff Regulations”).

(e) The tariff for the 2009-14 period was trued up and tariff for the 2014-19 period was determined vide order dated 15.2.2016 in Petition No. 278/TT/2014.

(f) The entire scope of work under the transmission project is covered in the instant petition and the details are as under:

i. 132 kV S/C Nirjuli-Dikrong Transmission Line along with associated bays
ii. 400 kV D/C Ranganadi-Balipara Transmission Line along with associated bays

(g) The Petitioner has sought revision of transmission tariff approved for the 2004-09 tariff period on account of change in Interest on Loan (IoL) and Interest on Working Capital (IWC) to the extent of revision in IoL and in “maintenance spares” in terms of the judgments of APTEL dated 22.1.2007 and 13.6.2007 in Appeal No(s). 81/2005 and 139/2006 respectively. The Petitioner has also sought consequential revision of tariff allowed for the transmission asset for the 2009-14 tariff period and truing up of tariff of the 2014-19 tariff period and determination of tariff for the 2019-24 tariff period for Combined Assets of the transmission project in the North Eastern Region.

(h) APTEL, vide judgements dated 22.1.2007 in Appeal No. 81/2005 and other related Appeals, and judgement dated 13.6.2007 in Appeal No. 139/2006 pertaining to generating stations of NTPC decided on, mainly the following issues:-

(a) Computation of interest on loan
(b) Consequences of refinancing of loan
(c) Depreciation as deemed repayment
(d) Admissibility of depreciation up to 90% of the value of the assets
(e) Consideration of maintenance of spares for working capital
(f) Depreciation of assets.

(i) The Commission and certain interested parties preferred civil appeals against APTEL’s judgments before the Hon’ble Supreme Court in 2007. The Appeals were admitted and initially stay was granted by the Hon’ble Supreme Court. Subsequently, on an assurance by NTPC that the issues under Appeal would not be pressed for implementation during the pendency of the Appeals, the stay was vacated by the Hon’ble Supreme Court.

(j) Based on APTEL’s judgments dated 22.1.2007 and 13.6.2007, the Petitioner sought re-determination of tariff of its transmission assets for the 2001-04 and 2004-09 tariff periods vide Petition No. 121/2007. The Commission after taking into consideration the pendency of Appeals before the Hon’ble Supreme Court adjourned the said petition *sine die* and directed that the same be revived after the disposal of Civil Appeals by the Hon’ble Supreme Court.

(k) The Hon’ble Supreme Court vide its judgment and final order dated 10.4.2018 dismissed the said Civil Appeals.

(l) Consequent to the Hon’ble Supreme Court’s judgment dated 10.4.2018, Petition No. 121/2007 was listed for hearing before the Commission on 8.1.2019. The Commission vide order dated 18.1.2019 in Petition No. 121/2007, directed the Petitioner to submit its claim at the time of filing of truing up of the petitions for the period 2014-19 in respect of the concerned transmission assets.

(m) In view of APTEL’s judgments dated 22.1.2007 and 13.6.2007 and the judgement of Hon’ble Supreme Court dated 10.4.2018, the tariff is being revised. Although, period-wise tariff is being re-worked based on the Tariff Regulations applicable for the respective tariff periods, suitable assumptions at certain places, if required, are being applied which are being indicated.

(n) Tariff in respect of the transmission assets was determined by the Commission vide order dated 19.8.2009 in Petition No. 84/2006 with effect from 1.4.2004 in accordance with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004 (hereinafter referred to as “the 2004 Tariff Regulations”). The tariff from 1.4.2004 was worked out based on the admitted capital cost as follows:

(₹ In lakh)

Asset	Admitted Expenditure up to COD	Admitted Capital Cost		Additional Capital Expenditure			Admitted Capital Cost as on 31.3.2009
		As on 1.4.2004	As on 1.4.2005	2006-07	2007-08	2008-09	
Asset-I	794.26	794.26	794.26	0	0	0	794.26
Asset-II	14216.02	14215.79*	14186.60*	18.19	39.93	4.89	14249.61

**Considering decapitalisation of ₹0.23 lakh and ₹29.19 lakh during 2003-04 and 2004-05 respectively for Asset-II.*

(o) Accordingly, considering the above admitted capital cost, the tariff is being revised for the 2004-09 and 2009-14 tariff periods in terms of APTEL's judgement dated 22.1.2007 and 13.6.2007.

4. The Respondents are transmission licensees and distribution licensees, who are procuring transmission services from the Petitioner and are mainly beneficiaries of the North Eastern Region.

5. The Petitioner has served the petition on the Respondents and notice regarding filing of this petition has been published in newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments or objections have been received from the general public in response to the aforesaid notices published in the newspapers. General Notice dated 12.3.2020 directing the beneficiaries/Respondents to file reply in the matter was also posted on the Commission's website. However, none of the Respondents have filed reply in the matter.

6. The hearing in this matter was held on 24.6.2020 through video conference and the order was reserved.

7. This order is issued considering the submissions made by the Petitioner in the Petition vide affidavit dated 4.1.2020 and the Petitioner's reply vide affidavit dated 19.5.2020 to the TV (technical validation) letter and reply to Record of Proceedings (RoP) vide affidavit dated 8.7.2020.

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

REVISION OF TRANSMISSION CHARGES FOR THE 2004-09 AND 2009-14 TARIFF PERIODS

9. The Petitioner has sought revision of the computation of IoL, maintenance spares for working capital and depreciation allowed for the 2004-09 period on the basis of the judgements of APTEL dated 22.1.2007 in Appeal No. 81/2005 and 13.6.2007 in Appeal No. 139/2006. APTEL while dealing with the issue of computation of IoL, in judgement dated 22.1.2007, observed that IoL for the period from 1.4.1998 to 31.3.2001 shall be computed only on normative loan repayment as per its judgement dated 14.11.2006 in Appeal Nos. 94 and 96 of 2005. APTEL vide judgement dated 14.11.2006 set aside the Commission's methodology of computation of loan on the actual repayment basis or normative repayment whichever is higher and held that the Commission is required to adopt normative debt repayment methodology for working out IoL liability for the period from 1.4.1998 to 31.3.2001. In view of the above, the interest allowed for the 2004-09 period is revised on the basis of the normative debt repayment methodology. The relevant portions of the judgement of APTEL dated 14.11.2006 is as follows:-

> *"12.We have heard the arguments of the Senior Counsel(s) of appellant and respondents. We notice that the appellant has not challenged the formula for computing the annual repayment amount as provided in Appeal No. 96 of 2005 & IA No.117 of 2006 in Appeal No. 94 of 2005 para-22 of the impugned order and has only challenged the provisions at para 23 specifying that the amount of annual repayment for calculation of interest on loan is chosen higher of the normative debt and actual debt.*
>
> *13. As mentioned earlier the servicing of the capital (equity or debt) is financed by the recovery of interest on debt capital and through earning of return on equity capital. The actual loan repayment has been normalized to 50% of the total capital by the formula in para 22 of the impugned order given in para 11 above. Once it has been decided and agreed that the financing plan would be based on normative debt–equity ratio of 50:50 and not the actual debt-equity ratio, the same normative basis should be adopted for recovery of cost of servicing the capital.*

14. In the instant case since the normative debt-equity ratio of 50:50 has been adopted in the financing plan, the loan repayment should be computed based on normative debt. This is to ensure that whatever normative debt has been considered, tariff should ensure the recovery of the same normative debt and interest thereon."

"18. In its Tariff Regulation of 2004 the Central Commission perhaps recognizing the aforesaid anomaly has dispensed with the practice of adopting higher of actual or normative repayment and has corrected the method of determination of quantum of debt repayment only on the basis of the normative debt with effect from 01.04.2004.

19. In view of the above, the Central Commission is required to adopt normative debt repayment methodology for working out the interest on loan liability for the period 01.04.1998 to 31.03.2001."

10. In view of the above, the interest allowed for 2004-09 period is revised on basis of the normative debt repayment methodology.

11. APTEL vide its judgement dated 13.6.2007 in Appeal No. 139/2006 and others held that ACE (Additional Capital Expenditure) after the date of commercial operation should also be considered for computation of maintenance spares as under:-

*"**Analysis and Decision***

We are not inclined to agree with the contention of the respondents that escalation of 6% will take care of the additional capitalization. Escalation is meant to factor inflation and is allowed as per CERC Regulations whether or not additional capitalization takes place. Question before us is that: can the historical cost be frozen with the Commissioning of the station. It is quite normal and prudent to ensure earliest operation of the plant without necessarily 100% completion of plants and works, of course not at the cost of safety of the plant. Adding some of the plants and works after the commercial operation will reduce interest during construction. If technically it is possible to delay some of the plants or works, it is only prudent to do so. For example it is common to build redundancies in the plant at a little later stage. CERC's own regulations rightly recognized additional capitalization. It is pertinent to set out excerpts pertaining to additional capitalization from CERC (Terms & Conditions of Tariff) Regulation, 2004 Clause 18 as below:-

"Additional capitalization (1) The following capital expenditure within the original scope of work actually incurred after the date of commercial operation and up to the cut off date may be admitted by the Commission, subject to prudence check:

(i) Deferred liabilities
(ii) Works deferred for execution
(iii) Procurement of initial capital spares in the original scope of work, subject to ceiling specified in regulation 17.
(iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and
(v) On account of change in law.

Provided that original scope of work along with estimates of expenditure shall be submitted along with the application for provisional tariff.

Provided further that a list of the deferred liabilities and works deferred for execution shall be submitted along with the application for final tariff after the date of commercial operation of the generating station."

It is clear from the abovementioned Clause 18 of the CERC Regulations that additional capitalization after the date of commercial operation is recognized as part of the capital expenditure Historical cost does not literally mean that the cost on the date of the commercial operation. The term historical cost is used so as to distinguish it from 'book value' or 'the replacement cost'. The cost of maintenance spares limited to 1% of the historical cost corresponds to the plant and equipment and installations which are required to be maintained. If the cost of additional equipment is not included in the historical cost, how spares for the additional equipment be procured for maintenance of the additional equipment. In this view of the matter, the CERC needs to examine afresh in the light of the aforesaid observations."

12. In view of the above, the maintenance spares to be considered for computation of working capital for 2004-09 period is also required to be revised taking into consideration ACE after the date of commercial operation.

13. APTEL vide its judgement dated 13.6.2007 in Appeal No. 139/2006 observed that depreciation is an expense and it cannot be deployed for deemed repayment of loan and accordingly directed the Commission to compute the outstanding loan afresh. The relevant portion of the judgement is as under:-

"Analysis and Decision

In the orders of this Tribunal dated November 14, 2006 and January 24, 2007 it has been laid down that the computation of outstanding loan will be on normative basis only (instead of normative or actual whichever is higher). In view of this there is no question of any adjustment of the depreciation amount as deemed repayment of loan.

It is to be understood that the depreciation is an expense and not an item allowed for repayment of loan. If a corporation does not borrow, it would not mean that the corporation will not be allowed any depreciation. Depreciation is an expense it represents a decline in the value of asset because of use, wear or obsolescence. The Accounting Principles Board of USA defines depreciation as under:-

"The cost of a productive facility is one of the costs of the service it renders during its useful economic life. Generally accepted accounting principles require that this cost be spread over the expected useful life of the facility in such a way as to allocate it as equitably as possible to the periods during which services are obtained from the use of the facility. This procedure is known as depreciation accounting, a system of accounting which aims to distribute the cost or other basic value of tangible capital assets, less salvage (if any), over the estimated useful life

> *of the unit (which may be a group of assets) in a systematic and rational manner. It is a process of allocation, not of valuation"*

It is well established that the depreciation is an expense and therefore, itcannot be deployed for deemed repayment of loan. In this view of the matter the CERC shall need to make a fresh computation of outstanding loan in the light of the aforesaid observations."

14. Accordingly, in view of the above directions of APTEL, the outstanding loan allowed for the transmission assets for 2004-09 tariff period is revised in the instant order.

15. The revision of tariff allowed for the 2004-09 tariff period necessitates revision of tariff allowed for the 2009-14 period, which is also allowed in the instant order. The implementation of the directions of APTEL in case of the Petitioner was kept pending waiting for the outcome of the civil appeals filed before the Hon'ble Supreme Court. Hence, taking into consideration the facts of the case and keeping in view the interest of the consumers, we are of the view that the beneficiaries should not be burdened with the carrying cost for the difference in the tariff allowed earlier and allowed in the instant order for the period 2004-09 and 2009-14 tariff periods. Therefore, the Petitioner will neither claim nor pay any carrying cost from the beneficiaries for the difference, if any, in the tariff allowed earlier and that allowed vide the instant order. Further, the said difference in tariff shall be recovered/paid over a period of six months from the date of issue of this order.

2004-09 Period

16. The Commission vide order dated 19.8.2009 in Petition No. 84/2006 had approved transmission charges for the assets for the 2004-09 tariff period. The transmission charges in respect of Asset-I were revised vide order dated 17.6.2011 in Petition No. 301/2010 on account of refinancing of loan. Transmission charges in

respect of Asset-II were revised vide order dated 20.7.2010 in Petition No. 33/2010 on account of ACE during 2006-07, 2007-08 and 2008-09. The transmission charges approved for the 2004-09 period vide order dated 19.8.2009 in Petition No. 84/2006 are as follows:

(₹ in lakh)

Asset-I					
Particular	**2004-05**	**2005-06**	**2006-07**	**2007-08**	**2008-09**
Depreciation	27.23	27.23	27.23	27.23	27.23
Interest on Loan	36.72	32.74	28.77	20.51	14.27
Return on Equity	55.60	55.60	55.60	55.60	55.60
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	3.90	3.92	3.95	3.91	3.91
O&M Expenses	33.18	34.51	35.90	37.31	38.83
Total	**156.63**	**154.00**	**151.45**	**144.56**	**139.84**

(₹ in lakh)

Asset-II					
Particular	**2004-05**	**2005-06**	**2006-07**	**2007-08**	**2008-09**
Depreciation	378.37	377.99	378.15	378.68	379.08
Interest on Loan	665.93	609.26	551.24	402.01	282.90
Return on Equity	994.49	993.88	994.26	995.48	996.42
Advance against Depreciation	0.00	0.00	51.94	127.18	149.69
Interest on Working Capital	54.82	54.91	55.98	55.94	55.58
O&M Expenses	131.76	137.01	142.68	148.09	154.29
Total	**2225.37**	**2173.05**	**2174.25**	**2107.38**	**2017.96**

17. The Petitioner has claimed the following revised transmission charges for the transmission assets for the 2004-09 period:

(₹ in lakh)

Asset-I					
Particular	**2004-05**	**2005-06**	**2006-07**	**2007-08**	**2008-09**
Depreciation	27.23	27.23	27.23	27.23	27.23
Interest on Loan	37.58	35.01	31.77	23.06	16.16
Return on Equity	55.60	55.60	55.60	55.60	55.60
Advance against Depreciation	0.00	0.00	0.00	1.53	2.99
Interest on Working Capital	3.94	3.99	4.04	4.01	4.03
O&M Expenses	33.18	34.51	35.90	37.31	38.83
Total	**157.54**	**156.34**	**154.53**	**148.75**	**144.84**

(₹ in lakh)

Asset-II					
Particular	**2004-05**	**2005-06**	**2006-07**	**2007-08**	**2008-09**
Depreciation	378.37	377.99	378.15	378.68	379.08
Interest on Loan	673.36	624.70	566.40	412.99	290.58
Return on Equity	994.49	993.88	994.26	995.48	996.42
Advance against Depreciation	0.00	0.00	63.78	141.06	164.07
Interest on Working Capital	55.64	55.90	57.22	57.22	56.89
O&M Expenses	131.76	137.01	142.68	148.09	154.29
Total	**2233.62**	**2189.48**	**2202.49**	**2133.51**	**2041.33**

18. We have considered the Petitioner's claim. The transmission charges for the transmission assets for the 2004-09 tariff period are revised based on following:-

a) Admitted capital cost of ₹794.26 lakh and ₹14215.79 lakh as on 1.4.2004 for Asset-I and Asset-II respectively.

b) Decapitalization of ₹0.23 lakh and ₹29.19 lakh during 2003-04 and 2004-05 respectively in Asset-II.

c) ACE of ₹18.19 lakh, ₹39.93 lakh and ₹4.89 lakh during 2006-07, 2007-08 and 2008-09 respectively for Asset-II.

d) Weighted Average Rate of Interest on actual loan adopted from order dated 19.8.2009 in Petition No. 84/2006.

e) Weighted Average Rate of depreciation, rate of IWC and O&M Expenses as per order dated 19.8.2009 in Petition No. 84/2006.

19. In view of the above, the revised transmission charges allowed for the transmission assets for the 2004-09 tariff period are as follows:

(₹ in lakh)

Asset-I					
Particular	**2004-05**	**2005-06**	**2006-07**	**2007-08**	**2008-09**
Depreciation	27.23	27.23	27.23	27.23	27.23
Return on Equity	55.60	55.60	55.60	55.60	55.60
O & M Expenses	33.18	34.51	35.90	37.31	38.83
Advance against Depreciation	0.00	0.00	0.00	1.53	2.99
Interest on Loan	37.58	35.01	31.77	23.06	16.16

Interest on Working Capital	3.92	3.96	4.00	3.98	3.99
Total	**157.51**	**156.31**	**154.50**	**148.72**	**144.80**

(₹ in lakh)

Asset-II					
Particular	**2004-05**	**2005-06**	**2006-07**	**2007-08**	**2008-09**
Depreciation	378.37	377.99	378.15	378.68	379.08
Return on Equity	994.49	993.88	994.26	995.48	996.42
O & M Expenses	131.76	137.01	142.68	148.09	154.29
Advance against Depreciation	0.00	0.00	63.78	141.06	164.07
Interest on Loan	673.36	624.70	566.39	412.99	290.58
Interest on Working Capital	54.93	55.14	56.42	56.37	55.99
Total	**2232.91**	**2188.72**	**2201.69**	**2132.67**	**2040.44**

<u>2009-14 Period</u>

20. The Commission vide order dated 1.8.2011 in Petition No. 303/2010 had approved the tariff for the Combined Asset for the 2009-14 period and vide order dated 15.2.2016 in Petition No. 278/TT/2014 had trued up the tariff allowed for the 2009-14 period that was earlier allowed in order dated 1.8.2011 and the same is as follows:

(₹ in lakh)

Combined Asset					
Particular	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**
Depreciation	794.93	805	815.79	816.94	819.7
Interest on Loan	229.79	161.38	94.25	27.52	0
Return on Equity	1403.38	1466.15	1479.78	1481.09	1501.98
Interest on Working Capital	62.58	63.35	65.87	68.81	69.89
O&M Expenses	239.28	252.99	321.17	406.62	429.8
Total	**2729.97**	**2748.89**	**2776.86**	**2800.98**	**2821.37**

21. The Petitioner has claimed the following revised transmission charges for the Combined Asset for the 2009-14 tariff period:

(₹ in lakh)

Combined Assets					
Particular	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**
Depreciation	794.93	805.00	815.79	816.94	819.70
Interest on Loan	238.50	169.98	102.70	31.69	0.00
Return on Equity	1403.38	1466.15	1479.79	1481.09	1501.98
Interest on Working Capital	62.76	63.53	66.05	68.90	69.89

O&M Expenses	239.28	252.99	321.17	406.62	429.80
Total	**2738.84**	**2757.65**	**2785.50**	**2805.24**	**2821.37**

22. We have considered the Petitioner's claim. The tariff allowed for the transmission assets for the 2009-14 tariff period based on the following:-

a) Admitted capital cost of ₹15043.87 lakh for Combined Asset as on 1.4.2009.

b) ACE of ₹524.12 lakh during 2009-14 period.

c) Weighted Average Rate of Interest on actual loan derived/adopted from order dated 15.2.2016 in Petition No. 278/TT/2014.

d) Weighted Average Rate of Depreciation as per order dated 15.2.2016 in Petition No. 278/TT/2014.

23. In view of the above, the revised transmission charges allowed for the Combined Asset for the 2009-14 tariff period are as follows:

(₹ in lakh)

Combined Asset					
Particular	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**
Depreciation	794.93	805.00	815.79	816.94	819.70
Interest on Loan	238.50	169.98	102.70	31.69	0.00
Return on Equity	1403.38	1466.15	1479.79	1481.09	1501.98
Interest on Working Capital	62.76	63.53	66.05	68.90	69.89
O&M Expenses	239.28	252.99	321.17	406.62	429.80
Total	**2738.85**	**2757.65**	**2785.50**	**2805.24**	**2821.37**

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

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

(₹ in lakh)

Particular	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Depreciation	822.74	284.06	289.48	317.94	349.77
Interest on Loan	0.00	0.00	0.00	18.94	29.64
Return on Equity	1506.52	1516.26	1522.97	1560.36	1604.38
Interest on Working Capital	75.35	63.90	64.92	67.65	70.43
O&M Expenses	393.45	406.60	420.05	434.00	448.40

Total	**2798.06**	**2270.82**	**2297.42**	**2398.89**	**2502.62**

25. The details of the trued up IWC claimed by the Petitioner in respect of Combined Asset for the 2014-19 tariff period are as under:

(₹ in lakh)

Particular	2014-15	2015-16	2016-17	2017-18	2018-19
O&M expenses	32.79	33.88	35.00	36.17	37.37
Maintenance Spares	59.02	60.99	63.01	65.10	67.26
Receivables	466.34	378.47	382.90	399.81	417.11
Total	**558.15**	**473.34**	**480.91**	**501.08**	**521.74**
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	75.35	63.90	64.92	67.65	70.43

Notional Date of Commercial Operation (Notional COD) and Weighted Average Life (WAL)

26. The Commission vide order dated 1.8.2011 in Petition No. 303/2010 determined tariff for Combined Asset for the 2009-14 tariff period. Further, vide order dated 15.2.2016 in Petition No. 278/TT/2014, the Commission trued up the tariff for the 2009-14 period in respect of the Combined Asset and also approved the tariff for 2014-19 period. In paragraph 27 of the said order dated 15.2.2016 in Petition No. 278/TT/2014, the Commission had recognised 34 years as the weighted average useful life of the assets as per the 2009 Tariff Regulations.

27. While approving the tariff for the 2009-14 tariff period vide order dated 1.8.2011 in Petition No. 303/2010, AFC for the Combined Asset was worked out on the basis of notional COD, wherein the capital costs of the transmission assets of the transmission project were progressively combined considering their dates of commercial operation. The COD of the last asset was considered as the Notional COD, which in case of the transmission assets was determined as 1.1.2003 vide order dated 1.8.2011 in Petition No. 303/2010.

28. Subsequently, vide Regulation 27(1) of the 2014 Tariff Regulations, the concept of Effective COD was introduced and similar provisions continue in the 2019 Tariff Regulations. Since in case of transmission assets, tariff for the 2009-14 tariff period was determined and trued-up on the basis of Notional COD and tariff for the 2014-19 period was also determined on the basis of Notional COD of 1.1.2003, we are of the view that it is appropriate to continue with notional COD in case of the transmission assets. Accordingly, tariff is being trued-up in the instant order on the basis of notional COD instead of on the basis of Effective COD. Therefore, the useful life of the Combined Asset would remain the same as decided earlier. The elapsed life works out as 11 (eleven) years as on 1.4.2014 (i.e. the number of completed years as on 1.4.2014 from notional COD). Accordingly, the remaining useful life (as on 31.3.2014) of the Combined Asset in the instant petition is considered as 23 years.

29. WAL as on 1.4.2014 as determined above is applicable prospectively (i.e. for the 2014-19 tariff period onwards) and no retrospective adjustment of depreciation in previous tariff period is required to be done. As discussed, the notional COD of the assets is 1.3.2003 and the lapsed life of the project as a whole, works out as eleven (11) years as on 1.4.2014 (i.e. the number of completed years as on 1.4.2014 from Effective COD). Accordingly, WAL has been used to determine the remaining useful life as on 31.3.2014 to be 23 years.

Capital Cost as on 1.4.2014

30. The capital cost of the transmission assets has been calculated in accordance with the Regulation 9(3) and Regulation 9(6) of 2014 Tariff Regulations. The Commission vide order dated 15.2.2016 in Petition No. 278/TT/2014 had approved the transmission tariff for the transmission assets for the 2014-19 period based on

admitted capital cost of ₹15567.99 lakh as on 31.3.2014 for Combined Asset. Therefore, the admitted capital cost of ₹15567.99 lakh as on 31.3.2014 has been considered for working out the trued-up tariff for the tariff period 2014-19. The details of the capital cost allowed for Combined Asset as on 31.3.2014 is as follows:

(₹ in lakh)

FR Cost	RCE Cost	Capital Cost allowed as on 31.3.2014
4734.00	17243.00	15567.99

Additional Capital Expenditure (ACE)

31. The Commission vide its order dated 15.2.2016 in Petition No. 278/TT/2014 had approved ACE of ₹592.94 lakh and de-capitalization of ₹17.90 lakh in 2014-15 towards balance/retention payment against completion of switchable line reactor scheme at Balipara Sub-station and execution of pile foundation work at location no. 45, 58 and 66 of Ranganadi-Balipara Transmission Line. The Petitioner had submitted that ACE was discussed and agreed during 98th OCC meeting dated 10.6.2014 and 14th NERPC meeting dated 16.1.2014. ACE has been claimed under Regulation 14(1), 14(3)(vii) and (ix) of the 2014 Tariff Regulations.

32. The Petitioner has claimed ACE of ₹27.33 lakh, ₹68.69 lakh, ₹184.28 lakh, ₹1080.49 lakh and ₹263.24 lakh in 2014-15, 2015-16, 2016-17, 2017-18 and 2018-19, respectively, and de-capitalization of ₹13.42 lakh and ₹4.48 lakh in 2010-11 and 2013-14, respectively, incurred towards pile foundation at location No. 41, 42, 45, 46, 47, 48, 49, 58, 65, 66 and 67 in 400 kV D/C Ranganadi-Balipara Transmission Line stating that the same was approved in 15th meeting of NERPC held on 21.8.2015 for efficient operation of the transmission system. The Petitioner has claimed the aforesaid ACE under Regulation 14(3)(vii) and (ix) of the 2014 Tariff Regulations and

has submitted the Auditor's Certificate dated 31.7.2019 in support of the actual ACE incurred during the 2014-19 period.

33. The Petitioner, vide affidavit dated 19.5.2020,has submitted party-wise details of ACE incurred during 2014-19 period as given below:

Year	Party Name	Balance and Retention payment for the O&M work executed prior to year (₹ in lakh)	ACE during the year (Payment for the O&M work executed during the year) (₹ in lakh)	ACE as per Certificate (₹ in lakh)
2014-15	Mega Electricals	22.14	--	22.14
	Roni Enterprises	3.27	1.92	5.19
	Total (2014-15)	**25.41**	**1.92**	**27.33**
2015-16	Tribeni Construction Ltd	--	68.69	68.69
	Total (2015-16)	**--**	**68.69**	**68.69**
2016-17	Tribeni Construction Ltd	5.76	120.94	126.7
	Sujit Nandy	--	7.58	7.58
	Meher Foundations	--	50	50
	Total (2016-17)	**5.76**	**178.52**	**184.28**
2017-18	Tribeni Construction Ltd	--	135.18	135.18
	Meher Foundations	284.9	581.05	865.95
	SabiramBasumatary	4.14	75.22	79.36
	Total (2017-18)	**289.04**	**791.45**	**1080.49**
2018-19	Namdhari Industrial Traders	0.56	157.75	158.31
	SabiramBasumatary	--	104.93	104.93
	Total (2017-18)	**0.56**	**262.68**	**263.24**

34. ACE claimed by the Petitioner is on account of expenditure incurred towards pile foundation work for 400 kV D/C Ranganadi-Balipara Transmission Line incurred after cut-off date for successful and efficient operation of transmission system. Regulation 14(3)(vii) and (ix) of the 2014 Tariff Regulations provides as follows:

> *"(vii) Any additional capital expenditure which has become necessary for efficient operation of generating station other than coal/lignite based stations or transmission system as the case may be. The claim shall be substantiated with the technical justification duly supported by the documentary evidence like test results carried out by an independent agency in case of deterioration of assets, report of an independent agency in case of damage caused by natural calamities, obsolescence of technology, up-gradation of capacity for the technical reason such as increase in fault level;*
>
> *(ix) In case of transmission system, any additional expenditure on items such as relays, control and instrumentation, computer system, power line carrier communication, DC batteries, replacement due to obsolescence of technology, replacement of switchyard*

equipment due to increase of fault level, tower strengthening, communication equipment, emergency restoration system, insulators cleaning infrastructure, replacement of porcelain insulator with polymer insulators, replacement of damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of transmission system; and"

35. The relevant extracts of the minutes of the 15th meeting of NERPC held on 21.8.2015 are as follows:

"A.9 : PREVENTIVE SHIFTING OF 400KV BALIPARA-RANGANADI #1&2 LINE ALONG THE RIVER DIKRONG WITH PILE FOUNDATION TO AVOID THREAT OF COLLAPSE OF LINE EVERY YEAR - AGENDA REF. IYEM NO. B.6
The river course of Dikrong River where the discharge of Ranganadi Generation is done changes frequently due to lower bed depth and higher scouring depth. As a result, every year one to two towers become endangered due to erosion of soil on account of wayward river course change. Meanwhile, 3 nos. of 400kV towers has already been shifted to pile and 3 nos. are under shifting. Considering the critically of 400kV Balipara-Ranganadi D/C Line for evacuation of 405MW Ranganadi HEP Generation and extending power supply to Arunachal Pradesh, the requirement of preventive shifting of balance 11 nos. of 400kV towers along the river to pile was discussed in OCC & PCC meetings of NERPC and the members agreed for preventive shifting of balance (11 Nos) 400 kV towers under PoC Mechanism. The tentative expenditure for shifting of 11 nos. of 400kV Towers will be around Rs. 22.00 Crores."

36. We have considered the submissions of the Petitioner. The ACE is on account pile foundation work for 400 kV D/C Ranganadi-Balipara Transmission Line after cut-off date for successful and efficient operation of transmission system and it was discussed in the 15th meeting of NERPC held on 21.8.2015. Therefore, ACE claimed by the Petitioner in 2014-19 tariff period is allowed under Regulation 14(3)(vii) and (ix) of the 2014 Tariff Regulations. The summary of capital cost including ACE is shown as under:

(₹ in lakh)

Particular	**Capital cost as on 31.3.2014**	**Additional Capital Expenditure (2014-19)**					**capital cost as on 31.3.2019**
		2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**	
Approved in Order dated 15.2.2016 in Petition No. 278/TT/2014	15567.99	575.04 (592.94 -17.90)	0	0	0	0	16143.03
Approved in this order	15567.99	27.33	68.69	184.28	1080.49	263.24	17192.02

Debt-Equity Ratio

37. The debt-equity ratio has been allowed in accordance with Regulation 19(3) of the 2014 Tariff Regulations. As per Regulation 19(3) of the 2014 Tariff Regulations, the debt-equity ratio allowed by the Commission for determination of tariff for the period ending on 31.3.2014 shall be considered. Accordingly, the admitted debt-equity ratio of 50.72:49.28 for the period ending on 31.3.2014 has been considered as opening debt-equity ratio as on 1.4.2014 for the purpose of truing up of tariff of the 2014-19 tariff period of the Combined Asset. Further, for ACE during 2014-19 period, normative debt-equity ratio of 70:30 has been considered. The details of the debt-equity ratio of the Combined Asset as on 1.4.2014 and 31.3.2019 is as follows:

Particulars	Capital cost as on 1.4.2014 (₹ in lakh)	(%)	Total cost as on 31.3.2019 (₹ in lakh)	(%)
Debt	7895.58	50.72	9032.41	52.54
Equity	7672.41	49.28	8159.61	47.46
Total	**15567.99**	**100.00**	**17192.02**	**100.00**

Interest on Loan (IoL)

38. The Petitioner has claimed IoL based on actual interest rates for each year during the 2014-19 period. The Petitioner has prayed for change in interest rates prevailing as on 1.4.2014 for respective loans. The petitioner has not claimed any interest on loan for 2014-15, 2015-16 and 2016-17 as the complete loan has already been repaid before the 2014-19 tariff period. As regards ACE incurred during the tariff period 2014-19, the Petitioner, vide affidavit dated 19.5.2020, has submitted that the funding has been done as given below:

Year	ACE (₹ in lakh)	Actual Deployment		% of Deployment	
		Equity (₹ in lakh)	Loan (₹ in lakh)	Equity	Loan
2014-15	27.33	27.33	0.00	100.00	0.00
2015-16	68.69	68.69	0.00	100.00	0.00
2016-17	184.28	184.28	0.00	100.00	0.00

2017-18	1080.49	1080.49	0.00	100.00	0.00
2018-19	263.24	162.37	100.87	61.68	38.32

39. We have considered the submission of the Petitioner. The normative loan amount has been considered as 70% of ACE during 2014-19 for calculation of IoL. It is observed that the Petitioner has not claimed any interest on loan during 2014-15, 2015-16 and 2016-17 as the loan amount added corresponding to 2014-15, 2015-16 and 2016-17 ACE is less than the depreciation allowed for the respective years and, therefore, the same is getting repaid in the same year. IoL has been calculated on actual interest rate, in accordance with Regulation 26 of the 2014 Tariff Regulations. IoL is calculated as follows: -

(i) Gross amount of loan, repayment of instalments and weighted average rate of interest on actual average loan have been considered as per the petition.

(ii) The repayment for the tariff period 2014-19 has been considered to be equal to the depreciation allowed for that period.

40. The details of the trued up IoL allowed for the Combined Asset for the 2014-9 tariff period is as follows:

(₹ in lakh)

Particular	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	7895.58	7914.71	7962.79	8091.79	8848.14
Cumulative Repayments up to Previous Year	7895.57	7914.71	7962.79	8091.79	8409.74
Net Loan-Opening	0.01	0.00	0.00	0.00	438.40
Additions	19.13	48.08	129.00	756.34	184.27
Repayment during the year	19.14	48.08	129.00	317.95	349.77
Net Loan-Closing	0.00	0.00	0.00	438.40	272.89
Average Loan	0.00	0.00	0.00	219.20	355.65
Weighted Average Rate of Interest on Loan (%)	9.12	8.83	8.69	8.64	8.34
Interest on Loan	**0.00**	**0.00**	**0.00**	**18.94**	**29.64**

41. Accordingly, IoL approved vide order dated 15.2.2016 in Petition No. 278/TT/2014, IoL claimed by the Petitioner in the instant petition and IoL allowed after true up in respect of the Combined Asset is shown in the table below:

(₹ in lakh)

Particular	2014-15	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 15.2.2016 in Petition No. 278/TT/2014	0	0	0	0	0
Claimed by the Petitioner in the instant petition	0	0	0	18.94	29.64
Allowed after true-up in this order	0	0	0	18.94	29.64

Return on Equity (RoE)

42. The Petitioner is entitled to RoE for the Combined Asset 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 MAT rates and has claimed following effective tax rates for the 2014-19 tariff period:

Year	Claimed effective tax rate (in %)	Grossed up RoE (Base Rate/1-t)(in %)
2014-15	21.018	19.624
2015-16	21.382	19.716
2016-17	21.338	19.705
2017-18	21.337	19.704
2018-19	21.549	19.758

43. We have considered the submissions of the Petitioner. The Commission in order dated 27.4.2020 in Petition No. 274/TT/2019 has arrived at the effective tax rate based on the notified MAT rates for the Petitioner. The relevant portion of the order 27.4.2020 is as under:

"26. We are conscious that the entities covered under MAT regime are paying Income Tax as per MAT rate notified for respective financial year under IT Act, 1961, which is levied on the book profit of the entity computed as per the Section 115JB of the IT Act, 1961. The Section 115JB(2) defines book profit as net profit in the statement of Profit & Loss prepared in accordance with Schedule-III of the Companies Act, 2013, subject to some additions and deductions as mentioned in the IT Act, 1961. Since the Petitioner has been paying income tax on income computed under Section 115JB of the IT Act, 1961 as per the MAT rates of the respective financial year, the notified MAT rate for respective financial year shall be considered as effective tax rate for the purpose of grossing up of RoE for truing up of the tariff of the 2014-19 tariff period in terms of the

provisions of the 2014 Tariff Regulations. Interest imposed on any additional income tax demand as per the Assessment Order of the Income Tax authorities shall be considered on actual payment. However, penalty (for default on the part of the Assessee) if any imposed shall not be taken into account for the purpose of grossing up of rate of return on equity. 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 transmission customers/ DICs as the case may be on year to year basis.

27. Accordingly, following effective tax rates based on notified MAT rates are considered for the purpose of grossing up of rate of return on equity:

Year	***Notified MAT rates (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*

44. The MAT rates considered in order dated 27.4.2020 in Petition No. 274/TT/2019 are considered 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. MAT rates allowed are as under:

Year	**Notified MAT rates (inclusive of surcharge & cess) (in %)**	**Base rate of RoE (in %)**	**Grossed up RoE (Base Rate/1-t) (in %)**
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

45. Accordingly, RoE approved for the Combined Asset for the 2014-9 tariff period is as follows:-

(₹ in lakh)

Particular	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Net Opening Equity	7672.41	7680.61	7701.22	7756.50	8080.64
Increase in Equity due to addition during the year	8.20	20.61	55.28	324.15	78.97
Closing Equity	7680.61	7701.22	7756.50	8080.64	8159.61
Average Equity	7676.51	7690.91	7728.86	7918.57	8120.13
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
Tax Rate applicable (%)	20.961	21.342	21.342	21.342	21.549
Applicable ROE Rate (%)	19.610	19.705	19.705	19.705	19.758

Return on Equity for the year	1505.36	1515.49	1522.97	1560.35	1604.37

46. Accordingly, RoE approved vide order dated 15.2.2016 in Petition No. 278/TT/2014, RoE claimed by the Petitioner in the instant petition and RoE allowed after true up in respect of the Combined Asset is shown in the table below:-

(₹ in lakh)

Particular	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Approved vide order dated 15.2.2016 in Petition No. 278/TT/2014	1521.47	1538.39	1538.39	1538.39	1538.39
Claimed by the Petitioner in the instant petition	1506.52	1516.26	1522.97	1560.36	1604.38
Allowed after true-up in this order	1505.36	1515.49	1522.97	1560.35	1604.37

Depreciation

47. The Petitioner has claimed depreciation considering capital expenditure of ₹15567.99 lakh as on 1.4.2014 for the Combined Asset. The Petitioner has not claimed any depreciation towards “IT Equipment” in the instant petition.

48. The depreciation has been worked out as per the methodology provided in Regulation 27 of the 2014 Tariff Regulations. The Gross Block during the tariff period 2014-19 has been depreciated at weighted average rate of depreciation (WAROD) and working of WAROD is given in Annexure-I. WAROD has been worked out after taking into account the depreciation rate as prescribed in the 2014 Tariff Regulations and the trued up depreciation allowed for the Combined Asset for 2014-19 tariff period is as under:-

(₹ in lakh)

Particular	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Opening Gross Block	15567.99	15595.32	15664.01	15848.29	16928.78
Additional Capitalisation	27.33	68.69	184.28	1080.49	263.24
Closing Gross Block	15595.32	15664.01	15848.29	16928.78	17192.02
Average Gross Block	15581.66	15629.67	15756.15	16388.54	17060.40
Elapsed life (at the beginning of the year)	11	12	13	14	15

Balance useful life (at the beginning of the year)	23	22	21	20	19
Rate of Depreciation (%)	5.28	Spreading	Spreading	Spreading	Spreading
Aggregate Depreciable Value	14023.49	14066.70	14180.54	14749.68	15354.36
Depreciation during the year	822.74	284.07	289.49	317.95	349.77
Aggregate Cumulative Depreciation	7817.19	8101.26	8390.75	8708.69	9058.47
Remaining Aggregate Depreciable Value	6206.30	5965.44	5789.79	6040.99	6295.89

49. Accordingly, depreciation approved vide order dated 15.2.2016 in Petition No. 278/TT/2014, depreciation claimed by the Petitioner in the instant petition and depreciation allowed after true up in respect of the Combined Asset is shown in the following table:

(₹ in lakh)

Particular	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed earlier in order dated 15.2.2016 in Petition No. 278/TT/2014	837.20	307.03	307.03	307.03	307.03
Claimed by the Petitioner in the instant petition	822.74	284.06	289.48	317.94	349.77
Allowed after true-up in this order	822.74	284.07	289.49	317.95	349.77

Operation & Maintenance Expenses (O&M Expenses)

50. The O&M Expenses claimed by the Petitioner for the Combined Asset are as under:

(₹ in lakh)

Particular	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	393.45	406.60	420.05	434.00	448.40

51. The O&M Expenses claimed by the Petitioner are within norms specified under Regulation 29(3) of the 2014 Tariff Regulations. The allowable O&M Expenses for the Combined Asset for the 2014-19 tariff period are as follows:

(₹ in lakh)

Particular	2014-15	2015-16	2016-17	2017-18	2018-19
Transmission Line					
400 kV Rangnadi-Balipata Transmission Line (Double Circuit Double Conductor) (km)	166.335	166.335	166.335	166.335	166.335

Norms (₹ lakh/km)	0.707	0.731	0.755	0.78	0.806
O&M	**117.60**	**121.59**	**125.58**	**129.74**	**134.07**
132 kV Ranganadi-Nirjuli Transmission Line (Single Circuit Single Conductor) (km)	22.290	22.290	22.290	22.290	22.290
Norms (₹ lakh/km)	0.202	0.209	0.216	0.223	0.230
O&M	**4.50**	**4.66**	**4.81**	**4.97**	**5.13**
Total O&M Expenses (Transmission Line) (A)	**122.10**	**126.25**	**130.40**	**134.71**	**139.19**
Sub-station					
No. of 400 kV Bays	4	4	4	4	4
Norms (₹ lakh/Bay)	60.30	62.30	64.37	66.51	68.71
O&M	241.20	249.20	257.48	266.04	274.84
No. of 132 kV Bays	1	1	1	1	1
Norms (₹ lakh/Bay)	30.15	31.15	32.18	33.25	34.36
O&M	30.15	31.15	32.18	33.25	34.36
Total O&M Expenses (bays) (B)	**271.35**	**280.35**	**289.66**	**299.29**	**309.20**
Total O&M Expenses (A+B) (₹ in lakh)	**393.45**	**406.60**	**420.06**	**434.00**	**448.39**

52. Accordingly, O&M Expenses approved vide order dated 15.2.2016 in Petition No. 278/TT/2014, O&M Expenses claimed by the Petitioner in the instant petition and O&M Expenses allowed after true up in respect of the Combined Asset in the instant order as under:

(₹ in lakh)

Particular	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Approved vide order dated 15.2.2016 in Petition No. 278/TT/2014	393.45	406.60	420.06	434.00	448.39
Claimed by the Petitioner in the instant petition	393.45	406.60	420.05	434.00	448.40
Allowed after true-up in this order	393.45	406.60	420.06	434.00	448.39

Interest on Working Capital (IWC)

53. The Petitioner has claimed IWC as per Regulation 28(1)(c) of the 2014 Tariff Regulations. The components of the working capital and the Petitioner's entitlement to interest thereon are discussed hereunder:-

(i) Receivables

Receivables as a component of working capital will be equivalent to two months fixed cost. The Petitioner has claimed the receivables on the basis of 2 months annual transmission charges. Accoridngly, receivables have been worked out on the basis of 2 months transmission charges.

(ii) Maintenance spares

Regulation 28 of the 2014 Tariff Regulations provides for maintenance spares @ 15% per annum of the O&M Expenses. The value of maintenance spares has been accordingly worked out.

(iii) O & M Expenses

O&M Expenses have been considered for one month as a component of working capital. The Petitioner has claimed O&M Expenses for 1 month of the respective year as claimed in the petition. This has been considered in the working capital.

(iv) Rate of interest on working capital

As per proviso 3 of Regulation 28 of the 2014 Tariff Regulations, SBI Base rate of 10.00% as on 1.4.2014 plus 350 Bps i.e. 13.50% has been considered for the Combined Asset, as the rate of interest on working capital.

54. The trued up IWC allowed as per the methodology provided in the Regulation 28 of the 2014 Tariff Regulations for the Combined Asset is as under:-

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	32.79	33.88	35.00	36.17	37.37
Maintenance Spares	59.02	60.99	63.01	65.10	67.26
Receivables	466.15	378.34	382.91	399.81	417.10
Total Working Capital	**557.95**	**473.21**	**480.92**	**501.08**	**521.73**
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on working capital	**75.32**	**63.88**	**64.92**	**67.65**	**70.43**

55. Accordingly, IWC approved vide order dated 15.2.2016 in Petition No. 278/TT/2014, IWC claimed by the Petitioner in the instant petition and IWC allowed after true up in respect of the Combined Asset is shown in the table below:

(₹ in lakh)

Particular	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed earlier in order dated 15.2.2016 in Petition	76.03	64.94	65.68	66.45	67.25

No. 278/TT/2014					
Claimed by the Petitioner in the instant petition	75.35	63.90	64.92	67.65	70.43
Allowed after true-up in this order	75.32	63.88	64.92	67.65	70.43

Approved Annual Fixed Charges for the 2014-19 Tariff Period

56. The trued up annual fixed charges for the Combined Asset for the tariff period 2014-19 are as under:-

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017–18	2018-19
Depreciation	822.74	284.07	289.49	317.95	349.77
Interest on Loan	0.00	0.00	0.00	18.94	29.64
Return on Equity	1505.36	1515.49	1522.97	1560.35	1604.37
Interest on Working Capital	75.32	63.88	64.92	67.65	70.43
O&M Expenses	393.45	406.60	420.06	434.00	448.39
Total	**2796.88**	**2270.05**	**2297.44**	**2398.89**	**2502.62**

57. Accordingly, details of the annual transmission charges in respect of the Combined Asset as approved vide order dated 15.2.2016 in Petition No. 278/TT/2014, the annual transmission charges claimed by the Petitioner in the instant petition and trued up annual transmission charges is as follows:-

(₹ in lakh)

Particular	2014-15	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 15.2.2016 in Petition No. 278/TT/2014	2828.15	2316.96	2331.16	2345.87	2361.06
Claimed by the Petitioner in the instant petition	2798.06	2270.82	2297.42	2398.89	2502.62
Allowed after true-up in this order	2796.88	2270.05	2297.44	2398.89	2502.62

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

58. The Petitioner has claimed the following transmission charges for the Combined Asset for the 2019-24 tariff period:-

(₹ in lakh)

Particular	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	408.09	422.01	387.25	416.13	396.33
Interest on Loan	22.16	11.04	0.00	0.00	0.00
Return on Equity	1539.85	1543.66	1540.16	1530.85	1521.54
Interest on Working Capital	42.15	42.83	43.09	43.60	43.84
O&M Expenses	300.34	310.76	321.57	332.70	344.20

Total	**2312.59**	**2330.30**	**2292.07**	**2323.28**	**2305.91**

59. The Petitioner has claimed the following IWC for the 2019-24 tariff period for the Combined Asset:

(₹ in lakh)

Particular	2019-20	2020-21	2021-22	2022-23	2023-24
O&M expenses	25.03	25.90	26.80	27.73	28.68
Maintenance Spares	45.05	46.61	48.24	49.91	51.63
Receivables	279.72	282.92	282.58	284.19	283.51
Total	**349.80**	**355.43**	**357.62**	**361.83**	**363.82**
Rate of Interest (%)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	**42.15**	**42.83**	**43.09**	**43.60**	**43.84**

Capital Cost

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

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

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

(a) The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;
(b) Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;
(c) Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period;
(d) Interest during construction and incidental expenditure during construction as computed in accordance with these regulations;
(e) Capitalised initial spares subject to the ceiling rates in accordance with these regulations;
(f) Expenditure on account of additional capitalization and de-capitalisation determined in accordance with these regulations;
(g) Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 7 of these regulations;
(h) Adjustment of revenue earned by the transmission licensee by using the assets before the date of commercial operation;
(i) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
(j) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal up to the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;
(k) Capital expenditure on account of biomass handling equipment and facilities, for co-firing;

(l) Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;
(m) Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project;
(n) Expenditure on account of change in law and force majeure events; and
(o) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.

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

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

(4) The capital cost in case of existing or new hydro generating station shall also nclude:
(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 GrameenVidyutikaranYojana (RGGVY) and DeendayalUpadhyaya Gram JyotiYojana (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 decapitalised only after its redeployment;

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

61. The capital cost of ₹17192.02 lakh has been considered by the Commission for the Combined Asset as on 31.3.2019. Further, the Petitioner has also projected net ACE of ₹386.69 lakh during the 2019-24 tariff period. Therefore, the capital cost of ₹17192.02 lakh as on 31.3.2019 has been considered as the opening capital cost as on 1.4.2019 for the purpose of determination of transmission tariff for 2019-24 period in accordance with Regulation 19 of the 2019 Tariff Regulations.

Additional Capital Expenditure (ACE) and De-capitalisation

62. Regulations 24 and 25 of the 2019 Tariff Regulations provide as under: -

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

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

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

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

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

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

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

(a) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority, or order or decree of any court of law;
(b) Change in law or compliance of any existing law;
(c) Deferred works relating to ash pond or ash handling system in the original scope of work;
(d) Liability for works executed prior to the cut-off date;
(e) Force Majeure events;
(f) Liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments; and
(g) Raising of ash dyke as a part of ash disposal system.

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

(a) The useful life of the Asset is not commensurate with the useful life of the project and such Asset have been fully depreciated in accordance with the provisions of these regulations;
(b) The replacement of the asset or equipment is necessary on account of change in law or Force Majeure conditions;
(c) The replacement of such asset or equipment is necessary on account of obsolescence of technology; and
(d) The replacement of such asset or equipment has otherwise been allowed by the Commission.

63. The Petitioner has projected ACE of ₹531.60 lakh, ₹148.07 lakh and ₹173.26 lakh during 2019-20, 2020-21 and 2022-23 respectively. Further, the Petitioner has also projected de-capitalization of ₹121.08 lakh, ₹121.08 lakh and ₹224.08 lakh during 2019-20, 2020-21 and 2022-23 respectively. The Petitioner has submitted that ACE and de-capitalisation to be incurred during 2019-20 and 2020-21 are on account of expenditure for procurement of pile foundation at location no. 41, 42, 45, 46, 47, 48, 49, 58, 65, 66, 67 in 400 kV D/C Ranganadi-Balipara transmission line as approved in 15th NERPC meeting held on 21.8.2015 for efficient operation of the transmission system. Further, the Petitioner has submitted that ACE and de-capitalisation to be incurred during 2022-23 is on account of expenditure towards replacement of old and

obsolete CT, line protection panel, transformer and reactor panel at Balipara Sub-station. The Petitioner has submitted that on account of ageing of CT, frequent oil leakage, DGA & tan Delta violation and hot spots are being routinely observed. In some cases, repairs from manufacturer are either not possible due to obscolence or it not being beneficial techno-economically. Further, all the relays at Balipara Sub-station are of electromechanical type and encounter frequent problems as they have become obsolete. They need to be retrofitted with numerical type relays which may support IEC 61850 communication protocol and DR channel naming. The Petitioner has claimed ACE under Regulation 25(2)(c) of the 2019 Tariff Regulations.

64. The total capital cost of the transmission asset including net ACE of ₹386.69 lakh projected to be incurred during 2019-24 period works out to ₹17578.71 lakh, which is more than the overall approved cost of ₹17243.00 lakh given in the investment approval. Therefore, the total capital cost has been restricted to the overall approved capital cost given in the investment approval.

65. During the course of hearing held on 24.6.2020, in response to a query of the Commission regarding approval to carry out works related to pile foundation and replacement of obsolete electrical equipment, the representative of the Petitioner submitted that the work related to pile foundation was approved in the 15th NERPC meeting dated 21.8.2015, whereas the replacement of electrical equipment is permissible under the 2019 Tariff Regulations. Although the 2019 Tariff Regulations allow for replacement of equipments on account of obsolescence of technology, it should have been discussed at the RPC level. We direct the Petitioner to discuss the issue of replacement of obsolete electrical equipments at RPC level and place the minutes on record at the time of true up of the tariff of the 2019-24 period. It is also

observed that the Petitioner has not submitted any documentary evidence regarding the equipment being obsolete, date of installion of CTs, line protection panel, transformer and reactor panel and test reports in support of these equipment. Further, the Petitioner has not submitted any OEM certificate that equipment is outdated and that they need to be replaced with latest available equipment. The Petitioner is directed to submit the useful life of the sub-station equipment and performance and test reports at the time of truing up the projected ACE claimed by the Petitioner in the 2019-24 period and the same shall be reviewed at the time of truing up.

66. Further, we have restricted the total capital cost to the overall approved cost given in the investment approval. The Petitioner may carry out the works related to pile foundation and replacement of obsolete electrical equipment and submit RCE at the time of true up of the tariff of the 2019-24 period. ACE for the 2019-24 tariff period shall be finally approved after the detailed scrutiny of ACE at the true up stage. The ACE allowed is summarized hereunder, which is subject to true up:

(₹ in lakh)

Admitted Capital Cost as on 31.3.2019	Projected ACE			Capital Cost as on 31.3.2024
	2019-20	2020-21	2022-23	
17192.02	50.98	0.00	0.00	17243.00

Debt-Equity Ratio

67. Regulation 18 of the 2019Tariff Regulations provides as under:-

*"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."

68. The debt-equity ratio for the 2019-24 period is allowed as per Regulation 18(3) of the 2019 Tariff Regulations. The details of the debt-equity ratio considered for the purpose of tariff for the 2019-24 tariff period are as follows:-

Particulars	Capital Cost as on 1.4.2019 (₹ in lakh)	%	Capital Cost as on 31.3.2024 (₹ in lakh)	%
Debt	9032.41	52.54	9073.72	52.62
Equity	8159.61	47.46	8169.28	47.38
Total	**17192.02**	**100.00**	**17243.00**	**100.00**

Return on Equity (RoE)

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

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

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

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

Provided further that:

i. In case of a new project, the rate of return on equity shall be reduced by1.00% 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 respectiveRLDC;

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 issuedbyNationalLoad 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:
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."

70. The Petitioner has submitted that MAT rate is applicable to the Petitioner. Accordingly, the MAT rate applicable in 2019-20 has been considered for the purpose of RoE, which shall be trued up with actual tax rate in accordance with Regulation 31(3) of the 2019 Tariff Regulations. RoE allowed for the Combined Asset is as under:-

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Net Opening Equity	8159.61	8169.28	8169.28	8169.28	8169.28
Increase in Equity due to addition during the year	9.66	0.00	0.00	0.00	0.00
Decrease due to de-capitalization during the year	0.00	0.00	0.00	0.00	0.00
Increase due to discharge during the year/period	0.00	0.00	0.00	0.00	0.00
Closing Equity	8169.28	8169.28	8169.28	8169.28	8169.28
Average Equity	8164.44	8169.28	8169.28	8169.28	8169.28
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	17.472	17.472	17.472	17.472	17.472
Applicable ROE Rate (%)	18.782	18.782	18.782	18.782	18.782
Return on Equity for the year	**1533.45**	**1534.35**	**1534.35**	**1534.35**	**1534.35**

Interest on Loan (IoL)

71. Regulation 32 of the 2019 Tariff Regulations provides as under:

> *"32. **Interest on loan capital**: (1) The loans arrived at in the manner indicated in Regulation 18 of these regulations shall be considered as gross normative loan for calculation of interest on loan.*
>
> *(2) The normative loan outstanding as on 1.4.2019 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2019 from the gross normative loan.*
>
> *(3) The repayment for each of the year of the tariff period 2019-24 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case ofde-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 up to the date of de-capitalisation of such asset.*
>
> *(4) Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of the year.*

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

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

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

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

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

72. The weighted average rate of IoL has been considered on the basis of rate prevailing as on 1.4.2019. The Petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, during 2019-24 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true up. In view of above, IoL has been worked out in accordance with Regulation 32 of the 2019 Tariff Regulations and the same is as follows:

(₹ in lakh)

Particular	**2019-20**	**2020-21**	**2021-22**	**2022-23**	**2023-24**
Gross Normative Loan	9032.41	9073.72	9073.72	9073.72	9073.72
Cumulative Repayments up to Previous Year	8759.51	9073.72	9073.72	9073.72	9073.72
Net Loan-Opening	272.89	0.00	0.00	0.00	0.00
Additions	41.32	0.00	0.00	0.00	0.00
Repayment during the year	314.21	0.00	0.00	0.00	0.00
Adjustment of cumulative repayment pertaining to the decapitalised asset	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Loan	136.45	0.00	0.00	0.00	0.00
Weighted Average Rate of Interest on Loan (%)	8.098	8.043	7.976	7.892	7.784
Interest on Loan	11.05	0.00	0.00	0.00	0.00

Depreciation

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

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

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

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

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

> *Provided that the salvage value for IT equipment and software shall be considered as NIL and 100% value of the assets shall be considered depreciable;*
>
> *Provided further that in case of hydro generating stations, the salvage value shall be as provided in the agreement, if any, signed by the developers with the State Government for development of the generating station:*
>
> *Provided also that the capital cost of the assets of the hydro generating station for the purpose of computation of depreciated value shall correspond to the percentage of sale of electricity under long-term power purchase agreement at regulated tariff:*
>
> *Provided also that any depreciation disallowed on account of lower availability of the generating station or unit or transmission system as the case may be, shall not be allowed to be recovered at a later stage during the useful life or the extended life.*

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

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

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

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

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

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

74. The Petitioner has decapitalised some equipment on account of obsolescence of technology during its useful life and has claimed unrecovered depreciation. The details submitted by the Petitioner are as under:

(₹ in lakh)

Gross block of de-capitalized asset (A)	Year of de-capitalization	Cumulative depreciation recovered (B)	Unrecovered depreciation (0.9*A-B)
121.08	2019-20	71.47	37.50
121.08	2020-21	73.44	35.53
224.08	2022-23	183.49	18.18

75. The Petitioner has submitted that Asset-1 was put under commercial operation in 2003 and the useful life was determined as 34 years. The de-capitalization is proposed to be carried out on account of replacement of certain equipments due to obsolesce of technology. Further, it has become imperative to de-capitalize 11 nos. towers along with conductors/insulators and other equipments because of change of river (Dikrong) course as a preventive measure to maintain the useful life of the project. The Petitioner has further submitted that the de-capitalized asset will not be in condition to be used in some other project and the unrecovered depreciation will be a

financial loss for the Petitioner, if the same is not allowed for reimbursement as claimed. The Petitioner has also submitted that the deapitalisation is proposed to be carried out in 2019-24 tariff block and the scrap value realized (if any) will be adjusted duly at the time of true-up of 2019-24 tariff block and the benefit will be passed on to the beneficiaries.

76. We have considered the submission of the Petitioner. It is observed that the Petitioner has proposed ACE and de-capitalization during 2019-24 tariff period on account of obsolescence to technology to maintain life of the Project. The Petitioner has prayed for allowing the unrecovered depreciation in case of the decapitalised assets. The Petitioner has submitted that the de-capitalized asset cannot be used in other projects and requested to allow the unrecovered depreciation and disallowance of the same will be a financial loss to the Petitioner. It is observed that the assets are no more in use and they are to be removed from the capital cost and as they are not part of the capital cost and they cannot be allowed depreciation. The Petitioner has further submitted that the scrap value, if any, realized would be adjusted at the time of truing up. We are of the view that allowing unrecovered depreciation of the decapitalised asset besides the depreciation allowed for the newly capitalised assets, would increase the tariff burdening the consumers. Therefore, we are not inclined to allow the unrecovered depreciation. The Petitioner is directed to adjust the scrap value realised on sale of the decapitalised asset towards the unrecovered depreciation. As stated in above, the capital cost has been restricted to the overall approved capital cost given in the Investment Approval. Accordingly, WAROD (Annexure-II to this order) is allowed after taking into account the depreciation rates of asset as specified 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 out for the Combined Asset for the 2019-24 tariff period is as follows:-

(₹ in lakh)

Particular	**2019-20**	**2020-21**	**2021-22**	**2022-23**	**2023-24**
Opening Capital Cost	17192.02	17243.00	17243.00	17243.00	17243.00
Additional Capital Expenditure during the year	50.98	0.00	0.00	0.00	0.00
Closing Capital Cost	17243.00	17243.00	17243.00	17243.00	17243.00
Average Capital Cost	17217.51	17243.00	17243.00	17243.00	17243.00
Rate of Depreciation (%)	Spreading	Spreading	Spreading	Spreading	Spreading
Elapsed life at the beginning of the year	16	17	18	19	20
Balance useful life at the beginning of the year	18	17	16	15	14
Depreciable Value	15495.76	15518.70	15518.70	15518.70	15518.70
Depreciation during the year	**357.63**	**358.98**	**358.98**	**358.98**	**358.98**
Aggregate Cumulative Depreciation	9416.09	9775.07	10134.05	10493.02	10852.00
Remaining Aggregate Depreciable Value	6079.67	5743.63	5384.65	5025.68	4666.70

Operation & Maintenance Expenses (O&M Expenses)

77. Regulations 35(3)(a) and (4) of the 2019 Tariff Regulations specifies the norms for O&M Expenses for the transmission system and the same is as follows:-

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

Particulars	***2019-20***	***2020-21***	***2021-22***	***2022-23***	***2023-24***
Norms for sub-station Bays (₹ Lakh per bay)					
765 kV	*45.01*	*46.60*	*48.23*	*49.93*	*51.68*
400 kV	*32.15*	*33.28*	*34.45*	*35.66*	*36.91*
220 kV	*22.51*	*23.30*	*24.12*	*24.96*	*25.84*
132 kV and below	*16.08*	*16.64*	*17.23*	*17.83*	*18.46*
Norms for Transformers (₹ Lakh per MVA)					
765 kV	*0.491*	*0.508*	*0.526*	*0.545*	*0.564*
400 kV	*0.358*	*0.371*	*0.384*	*0.398*	*0.411*
220 kV	*0.245*	*0.254*	*0.263*	*0.272*	*0.282*
132 kV and below	*0.245*	*0.254*	*0.263*	*0.272*	*0.282*
Norms for AC and HVDC lines (₹ Lakh per km)					

Single Circuit (Bundled Conductor with six or more sub-conductors)	*0.881*	*0.912*	*0.944*	*0.977*	*1.011*
Single Circuit (Bundled conductor with four sub-conductors)	*0.755*	*0.781*	*0.809*	*0.837*	*0.867*
Single Circuit (Twin & Triple Conductor)	*0.503*	*0.521*	*0.539*	*0.558*	*0.578*
Single Circuit (Single Conductor)	*0.252*	*0.260*	*0.270*	*0.279*	*0.289*
Double Circuit (Bundled conductor with four or more sub-conductors)	*1.322*	*1.368*	*1.416*	*1.466*	*1.517*
Double Circuit (Twin & Triple Conductor)	*0.881*	*0.912*	*0.944*	*0.977*	*1.011*
Double Circuit (Single Conductor)	*0.377*	*0.391*	*0.404*	*0.419*	*0.433*
Multi Circuit (Bundled Conductor with four or more sub-conductor)	*2.319*	*2.401*	*2.485*	*2.572*	*2.662*
Multi Circuit (Twin & Triple Conductor)	*1.544*	*1.598*	*1.654*	*1.713*	*1.773*
Norms for HVDC stations					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	*834*	*864*	*894*	*925*	*958*
Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)	*1,666*	*1,725*	*1,785*	*1,848*	*1,913*
500 kV Rihand-Dadri HVDC bipole scheme (₹ Lakh) (1500	*2,252*	*2,331*	*2,413*	*2,498*	*2,586*
±500 kV Talcher- Kolar HVDC bipole scheme (₹ Lakh) (2000 MW)	*2,468*	*2,555*	*2,645*	*2,738*	*2,834*
±500 kV Bhiwadi-Balia HVDC bipole scheme (₹ Lakh) (2500	*1,696*	*1,756*	*1,817*	*1,881*	*1,947*
±800 kV, Bishwanath-Agra HVDC bipole scheme (₹ Lakh) (3000 MW)	*2,563*	*2,653*	*2,746*	*2,842*	*2,942*

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

Provided further that:

i. *the operation and maintenance expenses for new HVDC bi-pole schemes commissioned after 1.4.2019 for a particular year shall be allowed pro-rata on the basis of normative rate of operation and maintenance expenses of similar HVDC bi-pole scheme for the corresponding year of the tariff period;*

ii. *the O&M expenses norms for HVDC bi-pole line shall be considered as Double Circuit quad AC line;*

iii. *the O&M expenses of ±500 kV Mundra-Mohindergarh HVDC bipole scheme (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."

78. The O&M Expenses claimed by the Petitioner for the Combined Asset for the 2019-24 tariff period are as under.

(₹ in lakh)

Particular	**2019-20**	**2020-21**	**2021-22**	**2022-23**	**2023-24**
Transmission Line					
400 kV Rangnadi-Balipata Transmission Line (Double CircuitDouble Conductor) (km)	166.335	166.335	166.335	166.335	166.335
Norms (₹ lakh/km)	0.881	0.912	0.944	0.977	1.011
O&M	**146.54**	**151.70**	**157.02**	**162.51**	**168.16**
132 kV Ranganadi- Nirjuli Transmission Line (Single Circuit Single Conductor) (km)	22.290	22.290	22.290	22.290	22.290
Norms (₹ lakh/km)	0.252	0.26	0.27	0.279	0.289
O&M	**5.62**	**5.80**	**6.02**	**6.22**	**6.44**
Total O&M (Transmission Line) (A)	**152.16**	**157.50**	**163.04**	**168.73**	**174.60**

Sub-station					
No. of 400 kV Bays	4	4	4	4	4
Norms (₹ lakh/Bay)	32.15	33.28	34.45	35.66	36.91
O&M	**128.60**	**133.12**	**137.80**	**142.64**	**147.64**
No. of 132 kV Bays	1	1	1	1	1
Norms (₹ lakh/Bay)	16.08	16.64	17.23	17.83	18.46
O&M	**16.08**	**16.64**	**17.23**	**17.83**	**18.46**
Total O&M (bays) (B)	**144.68**	**149.76**	**155.03**	**160.47**	**166.10**
PLCC					
Original Project cost (₹ lakh)	175.16	175.16	175.16	175.16	175.16
Norm (% of Project Cost)	2	2	2	2	2
O&M PLCC (C)	**3.50**	**3.50**	**3.50**	**3.50**	**3.50**
Total O&M (A+B+C) (₹ in lakh)	**300.34**	**310.76**	**321.57**	**332.70**	**344.20**

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

"103. Thus, although PLCC equipment is a communication system, it has been considered as a part of sub-station, as it is used both for protection and communication. Therefore, we are of the considered view that rightly, it was not considered for separate O&M Expenses while framing norms of O&M for 2019-24 tariff period. While specifying norms for bays and transformers, O&M Expenses for PLCC have been included within norms for O&M Expenses for sub-station. Norms of O&M Expenses @2% of the capital cost in terms of Regulation 35(4) of the 2019 Tariff Regulations have been specified for communication system such as PMU, RMU, OPGW etc. and not for PLCC equipment."

"105. In our view, granting of O&M Expenses for PLCC equipment @2% of its capital cost under Regulation 35(4) of the 2014 Tariff Regulations under the communication

system head would tantamount to granting O&M Expenses twice for PLCC equipment as PLCC equipment has already been considered as part of the sub-station. Therefore, the Petitioner's prayer for grant of O&M Expenses for the PLCC equipment @2% of its capital cost under Regulation 35(4) of the 2014 Tariff Regulations is rejected.

106. The principle adopted in this petition that PLCC is part of sub-station and accordingly no separate O&M Expenses is admissible for PLCC equipment in the 2019-24 tariff period under Regulation 35(4) of the 2019 Tariff Regulations shall be applicable in case of all petitions where similar claim is made by the Petitioner. As already mentioned, the Commission, however, on the basis of the claim made by the Petitioner has inadvertently allowed O&M Expenses for PLCC equipment @2% of its original project cost, which is applicable for other "communication system", for 2019-24 period in 31 petitions given in Annexure-3 of this order. Therefore, the decision in this order shall also be applicable to all the petitions given in Annexure-3. Therefore, PGCIL is directed to bring this decision to the notice of all the stakeholders in the 31 petitions given in Annexure-3 and also make revised claim of O&M Expenses for PLCC as part of the sub-station at the time of truing up of the tariff allowed for 2019-24 period in respective petitions."

Therefore, the Petitioner's claim for separate O&M Expenses for PLCC @2% is not allowed.

80. The O&M Expenses allowed as per the norms specified in the 2019 Tariff Regulations for the Combined Asset for the 2019-24 tariff period are as under:

(₹ in lakh)

Particular	2019-20	2020-21	2021-22	2022-23	2023-24
Transmission Line					
400 kV Rangnadi-Balipata Transmission Line (Double CircuitDouble Conductor) (km)	166.335	166.335	166.335	166.335	166.335
Norms (₹ lakh/km)	0.881	0.912	0.944	0.977	1.011
O&M	**146.54**	**151.70**	**157.02**	**162.51**	**168.16**
132 kV Ranganadi- Nirjuli Transmission Line (Single Circuit Single Conductor) (km)	22.290	22.290	22.290	22.290	22.290
Norms (₹ lakh/km)	0.252	0.26	0.27	0.279	0.289
O&M	**5.62**	**5.80**	**6.02**	**6.22**	**6.44**
Total O&M (Transmission Line) (A)	**152.16**	**157.50**	**163.04**	**168.73**	**174.60**
Sub-station					
No. of 400 kV Bays	4	4	4	4	4
Norms (₹ lakh/Bay)	32.15	33.28	34.45	35.66	36.91
O&M	**128.60**	**133.12**	**137.80**	**142.64**	**147.64**
No. of 132 kV Bays	1	1	1	1	1
Norms (₹ lakh/Bay)	16.08	16.64	17.23	17.83	18.46
O&M	**16.08**	**16.64**	**17.23**	**17.83**	**18.46**
Total O&M (bays) (B)	**144.68**	**149.76**	**155.03**	**160.47**	**166.10**

Total O&M (A+B) (₹ in lakh)	**296.84**	**307.25**	**318.07**	**329.20**	**340.71**

Interest on Working Capital ("IWC")

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

> *"34. Interest on Working Capital: (1) The working capital shall cover:*
>
> *(c) For Hydro Generating Station (including Pumped Storage Hydro Generating Station) and Transmission System:*
>
> *(i) Receivables equivalent to 45 days of annual fixed cost;*
>
> *(ii) Maintenance spares @ 15% of operation and maintenance expenses including security expenses; and*
>
> *(iii) Operation and maintenance expenses, including security expenses for one month."*
>
> *(3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2019 or as on 1st April of the year during the tariff period 2019-24 in which the generating station or a unit thereof or the transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later:*
>
> *Provided that in case of truing-up, the rate of interest on working capital shall be considered at bank rate as on 1st April of each of the financial year during the tariff period 2019-24.*
>
> *(4) Interest on working capital shall be payable on normative basis notwithstanding that the generating company or the transmission licensee has not taken loan for working capital from any outside agency."*
>
> ***"3. Definition** - In these regulations, unless the context otherwise requires:-*
>
> *(7) '**Bank Rate**' means the one year marginal cost of lending rate (MCLR) of the State Bank of India issued from time to time plus 350 basis points;"*

82. The Petitioner has submitted that it has computed IWC for the 2019-24 period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of interest on working capital as 12.05%. The IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The Rate of Interest (RoI) on working capital considered is 12.05% (SBI 1 year MCLR applicable

as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20, whereas, RoI for 2020-21 onwards has been considered as 11.25% (SBI 1 year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points). The components of the working capital and interest thereon allowed for the Combined Asset for the 2019-24 tariff period is as under:-

(₹ in lakh)

Particular	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	24.74	25.60	26.51	27.43	28.39
Maintenance Spares	44.53	46.09	47.71	49.38	51.11
Receivables	275.47	276.13	277.52	278.94	279.64
Total Working Capital	344.73	347.82	351.73	355.76	359.14
Rate of Interest (%)	12.05	11.25	11.25	11.25	11.25
Interest on working capital	41.54	39.13	39.57	40.02	40.40

Annual Fixed Charges for the 2019-24 Tariff Period

83. The transmission charges allowed for the Combined Assets for the 2019-24 tariff period are as summarised below:-

(₹ in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	357.63	358.98	358.98	358.98	358.98
Interest on Loan	11.05	0.00	0.00	0.00	0.00
Return on Equity	1533.45	1534.35	1534.35	1534.35	1534.35
Interest on Working Capital	41.54	39.13	39.57	40.02	40.40
O&M Expenses	296.84	307.25	318.07	329.20	340.71
Total	**2240.50**	**2239.71**	**2250.97**	**2262.55**	**2274.44**

Filing Fee and Publication Expenses

84. 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

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

Security Expenses

86. 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. The Petitioner has requested to consider the actual security expenses incurred during 2018-19 for claiming estimated security expenses for 2019-20 which shall be subject to true up at the end of the year based on the actuals. The Petitioner has submitted that similar petition for security expenses for 2020-21, 2021-22, 2022-23 and 2023-24 shall be filed on a yearly basis on the basis of the actual expenses of previous year subject to true up at the end of the year on actual expenses. The Petitioner has submitted that the difference, if any, between the estimated security expenses and actual security expenses as per the audited accounts may be allowed to be recovered from the beneficiaries on a yearly basis.

87. We have considered the submissions of the Petitioner. We are of the view that the Petitioner should claim security expenses for all the transmission assets in one petition. It is observed that the Petitioner has already filed Petition No. 260/MP/2020 claiming consolidated security expenses on projected basis for the 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19. Therefore,

security expenses will be dealt with in Petition No. 260/MP/2020 in accordance with the applicable provisions of the 2019 Tariff Regulations.

Goods and Services Tax

88. The Petitioner has sought to recover GST on transmission charges separately from the Respondents, if at any time GST on transmission is withdrawn from negative list in future. We have considered the submission of the Petitioner. GST is not levied on transmission service at present and we are of the view that Petitioner's prayer is premature.

Capital Spares

89. 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

90. The billing, collection and disbursement of the transmission charges approved in this order shall be governed by the provisions of the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010, as amended from time to time or the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020, as applicable, as provided in Regulation 43 of the 2014 Tariff Regulations for the 2014-19 tariff period and Regulation 57 of the 2019 Tariff Regulations for the 2019-24 tariff period.

91. To summarise, revised Annual Fixed Charges (AFC) allowed for the Assets-I and II for the 2004-09 tariff period and revised AFC for the Combined Asset for the 2009-

14 tariff period and the trued-up AFC approved for the Combined Asset for the 2014-19 tariff period are as under:

(₹ in lakh)

Assets	**2004-05**	**2005-06**	**2006-07**	**2007-08**	**2008-09**
Asset-I	157.51	156.31	154.50	148.72	144.80
Asset-II	2232.91	2188.72	2201.69	2132.67	2040.44

(₹ in lakh)

Combined Asset	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**
AFC	2738.85	2757.65	2785.50	2805.24	2821.37

(₹ in lakh)

Combined Asset	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**
AFC	2796.88	2270.05	2297.44	2398.89	2502.62

The Annual Fixed Charges allowed for the Combined Asset for the 2019-24 tariff period are as under:

(₹ in lakh)

Particulars	**2019-20**	**2020-21**	**2021-22**	**2022-23**	**2023-24**
Annual Fixed Charges	2240.50	2239.71	2250.97	2262.55	2274.44

92. This order disposes of Petition No. 149/TT/2020

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

Annexure-I

Asset	2014-19 Capital Expenditure as on 1.4.2014	Combined admitted Capital Cost as on 1.4.2014 (₹ in lakh)	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation	Annual Depreciation as per Regulations (₹ in lakh) 2014-15	2015-16	2016-17	2017-18	2018-19
Combined Asset	Land	0.00	0.00	0.00%	0.00				
	Building	93.32	93.32	3.34%	3.12				
	Transmission Line	13827.12	15451.15	5.28%	730.79				
	Sub Station	1472.39	1472.39	5.28%	77.74				
	PLCC	175.16	175.16	6.33%	11.09				
	TOTAL	**15567.99**	**17192.02**		**822.74**				
			Average Gross Block (₹ in lakh)		**15581.66**	**15629.67**	**15756.15**	**16388.54**	**17060.40**
			Weighted Average Rate of Depreciation (%)		**5.28**	**Spreading**	**Spreading**	**Spreading**	**Spreading**

Annexure-II

Asset	2019-24	Combined admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation	Annual Depreciation as per Regulations (₹ in lakh)				
	Capital Expenditure as on 1.4.2019				2019-20	2020-21	2021-22	2022-23	2023-24
Combined Asset	Land	0.00	0.00	Spreading					
	Building	93.32	93.32						
	Transmission Line	15451.15	15502.13						
	Sub Station	1472.39	1472.39						
	PLCC	175.16	175.16						
	TOTAL	**17192.02**	**17243.00**						
			Average Gross Block (₹ in lakh)		17217.51	17243.00	17243.00	17243.00	17243.00
			Weighted Average Rate of Depreciation (%)		**Spreading**	**Spreading**	**Spreading**	**Spreading**	**Spreading**