

# CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No. 214/TT/2020

**Coram:**

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

**Date of Order: 14.12.2021**

**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 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission of tariff for the 2019-24 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for transmission system associated with Kopili Hydroelectric Stage-I extension project (2x50 MW) in the North Eastern Region.

**And in the matter of:**

Power Grid Corporation of India Limited,  
SAUDAMINI, Plot No-2, Sector-29,  
Gurgaon-122 001 (Haryana).

.....Petitioner

**Vs.**

1. Assam Electricity Grid Corporation Limited,  
(Formerly Assam State Electricity Board),  
Bijulee Bhawan, Paltan Bazar,  
Guwahati-781001, Assam.
2. Meghalaya Energy Corporation Limited,  
(Formerly Meghalaya State Electricity Board),  
Short Round Road, "Lumjingshai",  
Shillong-793001, Meghalaya.
3. Department of Power,  
Government of Arunachal Pradesh,  
Itanagar, Arunachal Pradesh.



4. Power and Electricity Department,  
Government of Mizoram,  
Aizawl, Mizoram.
5. Manipur State Electricity Distribution Company Limited,  
(Formerly Electricity Department, Government of Manipur),  
Keishampat, Imphal.
6. Department of Power,  
Government of Nagaland,  
Kohima, Nagaland.
7. Tripura State Electricity Corporation Limited,  
Vidyut Bhawan, North Banamalipur,  
Agartala, Tripura (W)-799001.

...Respondent(s)

**For Petitioner :** Shri S.S. Raju, PGCIL  
Shri A.K. Verma, PGCIL  
Shri D.K. Biswal, PGCIL  
Shri V.P. Rastogi, PGCIL

**For Respondent:** None

### **ORDER**

The Petitioner, Power Grid Corporation of India Limited, has filed the instant petition for revision of transmission tariff of the 2004-09 and 2009-14 tariff periods and truing of the capital expenditure for the period from 1.4.2014 to 31.3.2019 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and determination of tariff under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) for the period from 1.4.2019 to 31.3.2024 in respect of the transmission system associated with Kopili hydroelectric Stage-I extension project (2x50 MW) in the North Eastern Region (hereinafter referred to as “the transmission asset” or “the transmission system”).



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 materialised 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 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.*

*7) 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.*

*8) 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.*

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

*10) 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 system was accorded by Ministry of Power *vide* its letter dated 14.5.1993 at an estimated cost of ₹2237 lakh, which included IDC of ₹123 lakh.

b. The scope of work covered under the system is broadly as under:

### **Transmission lines:**

(i) 220 kV Kopili - Misa line (S/C strung on D/C towers): 75.79 Circuit-km.

### **Sub-station:**

(i) 220 kV Misa: Kopili III Bay

(ii) 220 kV Kopili: Misa III Bay

c. The transmission system was declared under commercial operation on 1.2.2000.

d. The Petitioner has submitted that in the North-Eastern Region (NER), a Uniform Common Pooled Transmission Tariff (UCPTT) comprising of a certain paise per kWh rate had been followed since 1991-92. The UCPTT that continued in NER (North Eastern Region) through mutual consent of the regional constituents did not conform to the Central Electricity Regulatory Commission (Terms & Conditions of Tariff) Regulations, 2001. The Commission *vide* order dated 1.1.2002 in Petition No. 40/2000 had provisionally allowed continuation of UCPTT up to 31.3.2004 for the transmission asset.

e. *Vide* order dated 27.4.2007 in Petition No. 85/2006, the Commission observed as follows:

*"7. Energy availability from Central generating stations in NER has gradually gone up in the recent years. On the other hand, the annual transmission charges, had they been calculated following the principles laid down in the Commission's tariff regulations, would have been coming down with repayment of loans over the years. A stage has thus come where continuation of the UCPTT is no longer beneficial to the NER States. The UCPTT scheme has already continued much beyond the date contemplated by the Commission for its termination in the order dated 1.1.2002. We are therefore keen that NER system switches over without further delay from the UCPTT Scheme, in which the Petitioner's revenue depends on the energy generated in the region (which is outside the Petitioner's control), to a scheme of annual transmission charges based on the Petitioner's investment in the regional system. Since this change-over has to be effected from the beginning*



*of a financial year, it is proposed from 1.4.2007. This had also been indicated by the Commission during the hearing on 30.11.2006.”*

f. Subsequently, *vide* order dated 16.1.2008 in Petition No. 85/2006, the Commission directed that with effect from 1.4.2007, the transmission charges for all the transmission assets in the NE region are to be determined under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004 (hereinafter referred to as “the 2004 Tariff Regulations”).

g. Accordingly, the transmission tariff for the period from 1.4.2004 to 31.3.2009 for the transmission system was allowed based on provisionally approved capital cost as per order dated 27.4.2007 in Petition No. 85/2006. The transmission tariff was revised *vide* order dated 16.1.2008 in Petition No. 85/2006 in terms of the APTEL’s judgment dated 4.10.2006 in Appeal No. 135 to Appeal No. 140 of 2005 and the entire amount of FERV had been considered against loan. The tariff allowed was further revised *vide* order dated 12.8.2009 in Petition No. 85/2006 in terms of the APTEL’s judgement dated 4.11.2008 in Appeal No. 77/2008. The transmission tariff for the period from 1.4.2009 to 31.3.2014 was allowed *vide* order dated 22.9.2010 in Petition No. 110/2010. The tariff of the 2009-14 period was trued-up and tariff from 1.4.2014 to 31.3.2019 was allowed *vide* order dated 26.11.2015 in Petition No. 169/TT/2014.

h. The Petitioner has sought revision of transmission tariff allowed for the period from COD to 31.3.2009 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 APTEL judgment dated 22.1.2007 in Appeal No. 81 of 2005 and batch matters and 13.6.2007 in Appeal No. 139 of 2006 and batch matters. The Petitioner has sought consequential revision of tariff allowed 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 transmission asset in the North Eastern Region.

i. The APTEL, *vide* judgements dated 22.1.2007 in Appeal No. 81 of 2005 and batch matters pertaining to generating stations of NTPC had considered 4 (four) issues. The issues considered by APTEL and its decisions are as given in the following table:



Sr. No.	Issue	APTEL's decisions/ directions
1	Whether the APTEL can enquire into the validity of Regulations framed by the Commission.	Challenge to the validity of Regulations framed by the Commission falls outside the purview of the APTEL.
2	Computation of interest on loan.	In view of the order of the APTEL dated 14.11.2016 in Appeal No. 94 of 2005 and Appeal No. 96 of 2005 and order dated 24.1.2007 passed in Appeal Nos. 81 to 87, 89 to 93 of 2005, computation of loan has to be based on loan repayment on normative basis. Commission is required to recalculate the loan outstanding as on 31.3.2004 based on loan repayment on normative basis.
3(a)	O&M Expenses: Inadequate provision of employee costs as part of O&M Expenses due to variation in salary and wages	Commission's view upheld
3(b)	O&M Expenses: Non-inclusion of incentives and ex-gratia payment to employees	Commission's view upheld
4	Cost of spares for calculation of working capital	Commission's view upheld

j. The APTEL *vide* its judgment dated 13.6.2007 in Appeal No. 139 of 2006 and batch matters pertaining to generating stations of NTPC had considered 9 (nine) issues. The issues considered and the decisions of the APTEL are given in the following table:

Sr. No.	Issue	APTEL's decisions/ directions
I	Computation of outstanding loan at the beginning of the tariff period i.e. 1.4.2004	The Commission is required to recalculate the loan outstanding as on 31.3.2004 based on loan repayment on normative basis.
II	Consequence of refinance of loan	Commission to consider the issue afresh
III	Treating depreciation available as deemed repayment of loan	Commission to make a fresh computation of outstanding loan
IV	Admissibility of depreciation up to 90%	Commission to consider the issue afresh
V	Cost of Maintenance Spares	Commission to consider the issue afresh
VI	Impact of de-capitalization of the assets on cumulative repayment of Loan	The cumulative repayment of the loan proportionate to the assets decapitalized required to be reduced. Commission to act accordingly.
VII	Non-consideration of normative transit loss for coal import.	Commission to consider afresh the transit losses for coal imported from coal mines other than the dedicated ones.



VIII	Foreign Exchange rate variation (FERV)	FERV has been kept as pass through to ensure that any liability or gain, if any, arising on account of any variation in foreign exchange rates is passed on to the beneficiary as held in order dated 4.10.2006 in Appeals No.135 to 140 of 2005. Commission to act accordingly.
IX	Computation of interest on loan in Singrauli Station	Net loan closing at the end of a year is reflected as net loan opening on the first day of the next year. Commission shall re-compute the interest accordingly.

k. The Commission and certain interested parties preferred Civil Appeals against the 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.

l. Based on APTEL's judgments dated 22.1.2007 in Appeal No. 81 of 2005 and 13.6.2007 in Appeal No. 139 of 2007 and the Commission's order dated 18.1.2019 in Petition No. 121/2007, the Petitioner had sought re-determination of transmission tariff of its transmission assets of the 2007-09 tariff period in 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 the Civil Appeals by the Hon'ble Supreme Court.

m. The Hon'ble Supreme Court *vide* order dated 10.4.2018, dismissed the said Civil Appeals. Thus, the said judgments of the APTEL have attained finality.

n. Consequent to the Hon'ble Supreme Court's order dated 10.4.2018, the 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 separately for the assets at the time of filing of truing up of the petitions for the 2014-19 tariff period in respect of concerned transmission assets.





o. The instant petition was heard on 17.8.2021 and in view of the APTEL's judgments dated 22.1.2007 in Appeal No. 81 of 2005 and batch matters along with order dated 13.6.2007 in Appeal No. 139 of 2006 and batch matters and the order of Hon'ble Supreme Court dated 10.4.2018, transmission tariff is being revised. Although, period-wise transmission 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 indicated.

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

5. The Petitioner has served the petition on the Respondents and notice of this petition had been published in the newspaper in accordance with Section 64 of the Electricity Act, 2003. No comments/ objections have been received from the general public in response to the aforesaid notice published in the newspaper by the Petitioner. Further, no respondent has filed any reply in this matter.

**Re: Interest on Loan (IOL)**

6. The APTEL while dealing with the issue of computation of IoL, *vide* judgement dated 22.1.2007 in Appeal No.81 of 2005 and batch matters 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 No. 94 of 2005 and Appeal No. 96 of 2005. APTEL *vide* its judgement dated 14.11.2006 in Appeal No. 94 of 2005 and Appeal No. 96 of 2005 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 the IoL liability for the period from 1.4.1998 to 31.3.2001.





In view of the judgement of APTEL, interest allowed for 2004-09 period is to be revised on the basis of the normative debt repayment methodology.

**Re: Additional Capital Expenditure (ACE)**

7. The APTEL *vide* its judgement dated 13.6.2007 in Appeal No. 139 of 2006 and batch matters held that ACE after commercial operation date (COD) should also be considered for computation of maintenance spares. In view of the judgement of the APTEL, maintenance spares to be considered for computation of working capital for the 2004-09 period is also required to be revised.

**Re: Depreciation**

8. As regards depreciation, the APTEL *vide* its judgement dated 13.6.2007 in Appeal No. 139 of 2006 and batch matters 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. Accordingly, the outstanding loan allowed for the transmission asset for the 2004-09 period is revised in the instant order.

9. The revision of transmission tariff allowed for the 2004-09 tariff period necessitates the revision of transmission tariff allowed for the 2009-14 tariff period, which is also being revised in the present order. The implementation of the directions of the APTEL *vide* judgments dated 22.1.2007 in Appeal No. 81 of 2005 and batch matters and dated 13.6.2007 in Appeal No. 139 of 2006 and batch matters respectively was kept pending in case of the Petitioner awaiting for the outcome of the Civil Appeals filed before the Hon'ble Supreme Court. 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 2004-09 and 2009-



14 tariff periods. Therefore, we direct that the Petitioner will neither claim nor pay any carrying cost from or to the beneficiaries for the difference, if any, in the tariff allowed earlier and the tariff being allowed in 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.

10. This order is issued considering the submissions made by the Petitioner *vide* affidavits dated 31.10.2019 and 13.7.2021.

11. The hearing in this matter was held on 17.8.2021 through video conference and the order was reserved. Having heard the representatives of the Petitioner and after perusal of the materials on record, we proceed to dispose of the petition.

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

**2004-09 Tariff Period**

12. The Commission allowed the transmission charges for the 2004-09 tariff period *vide* order dated 27.4.2007 in Petition No. 85/2006. The transmission tariff was revised *vide* order dated 16.1.2008 in Petition No. 85/2006 in terms of the judgment dated 4.10.2006 in Appeals No. 135 to 140 of 2005 of the APTEL and the entire amount of FERV has been considered against loan. The tariff allowed was further revised *vide* order dated 12.8.2009 in Petition No 85/2006 as per the APTEL's judgment dated 4.11.2008 in Appeal No. 77/2008. The transmission charges allowed for 2007-09 period in respect of the transmission asset were as follows:

<b>Particulars</b>	<b>(₹ in lakh)</b>	
	<b>2007-08</b>	<b>2008-09</b>
Depreciation	55.28	55.28
Interest on Loan	81.30	73.56
Return on Equity	39.91	39.91
Advance against Depreciation	42.77	52.83
O&M Expenses	82.59	85.96



Interest on Working Capital	8.82	9.12
<b>Total</b>	<b>310.67</b>	<b>316.66</b>

13. The Petitioner has claimed the following revised transmission charges for the transmission asset with effect from 1.4.2007 and the same is summarised as follows:

Particulars	(₹ in lakh)	
	2007-08	2008-09
Depreciation	55.28	55.28
Interest on Loan	81.11	73.30
Return on Equity	39.91	39.91
Advance against Depreciation	43.62	53.76
O&M Expenses	82.59	85.96
Interest on Working Capital	9.08	9.39
<b>Total</b>	<b>311.59</b>	<b>317.61</b>

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

- a) Admitted capital cost as on 1.4.2004 vide order dated 12.8.2009 in Petition No 85/2006 is ₹1898.23 lakh which includes ACE of ₹63.80 lakh from COD till 31.3.2004 and ₹29.03 lakh on account of FERV for the same period.
- b) There was no ACE during the 2004-09 period. However, there was an ACE of ₹63.80 lakh in the previous period, i.e., from COD till 31.3.2004, due to which the maintenance spares as on 1.4.2004 are revised for calculating IWC.
- c) The composition of capital cost allowed by the Commission vide order dated 12.8.2009 in Petition No 85/2006 is as follows:

Particulars	As on 01.04.2004 (₹ in lakh)	D:E Ratio as on 1.4.2004	As on 31.03.2009 (₹ in lakh)	D:E Ratio as on 31.3.2009
Debt	1613.15	84.98%	1613.15	84.98%
Equity	285.08	15.02%	285.08	15.02%
<b>Total</b>	<b>1898.23</b>	<b>100.00%</b>	<b>1898.23</b>	<b>100.00%</b>

- d) Weighted Average Rate of Depreciation (WAROD), Rate of Interest for Working Capital and O&M Expenses as per order dated 12.8.2009 in Petition No 85/2006.



e) Weighted Average Rate of Interest (WAROI) on actual loan is derived from order dated 12.8.2009 in Petition No 85/2006.

15. In view of the above, the revised AFC allowed for the transmission asset for the 2004-09 tariff period is as follows:

Particulars	(₹ in lakh)	
	2007-08	2008-09
Depreciation	55.28	55.28
Interest on Loan	81.30	73.56
Return on Equity	39.91	39.91
Advance against Depreciation	42.77	52.83
O&M Expenses	82.59	85.96
Interest on Working Capital	8.93	9.23
<b>Total</b>	<b>310.78</b>	<b>316.77</b>

16. The AFC allowed vide order dated 12.8.2009 in Petition No 85/2006 for 2004-09 period, the revised AFC claimed in the instant Petition and the AFC approved in the instant order are as follows:

Particulars	2007-08	2008-09
AFC allowed vide order dated 12.8.2009 in Petition No 85/2006	<b>310.67</b>	<b>316.66</b>
AFC claimed by the Petitioner in the petition	<b>311.59</b>	<b>317.61</b>
AFC approved in the instant order	<b>310.78</b>	<b>316.77</b>

### **2009-14 Tariff Period**

17. The Commission vide order dated 22.9.2010 in Petition No. 110/2010 allowed transmission tariff for the 2009-14 tariff period and subsequently, vide order dated 26.11.2015 in Petition No. 169/TT/2014 had trued-up the tariff allowed for the 2009-14 tariff period and the same is as follows:

Particulars	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	100.99	100.99	100.99	34.17	34.17
Interest on Loan	54.21	41.21	35.53	34.20	35.27
Return on Equity	53.23	55.19	55.24	55.24	55.91
O&M Expenses	86.93	91.88	97.16	102.75	108.62
Interest on Working Capital	8.69	8.71	8.86	7.72	8.05
<b>Total</b>	<b>304.06</b>	<b>297.98</b>	<b>297.78</b>	<b>234.08</b>	<b>242.02</b>



18. The Petitioner has claimed the following revised transmission charges for the instant transmission asset for the 2009-14 tariff period in the instant Petition:

(₹ in lakh)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	100.99	100.99	100.99	34.17	34.17
Interest on Loan	53.97	41.00	35.33	33.98	35.04
Return on Equity	53.23	55.19	55.24	55.24	55.91
O&M Expenses	86.93	91.88	97.16	102.75	108.62
Interest on Working Capital	8.69	8.71	8.85	7.71	8.04
<b>Total</b>	<b>303.81</b>	<b>297.76</b>	<b>297.57</b>	<b>233.85</b>	<b>241.78</b>

19. We have considered the Petitioner's claim. The tariff is revised for the transmission asset on basis of the following:

- a) The admitted capital cost and ACE allowed by the Commission for the 2009-14 period are as follows:

(₹ in lakh)		
Admitted Capital Cost (as on 1.4.2009)	ACE 2009-14	Admitted Capital Cost (as on 31.3.2014)
1898.23	0.00	1898.23

- b) WAROI on actual loan derived/ adopted from order dated 26.11.2015 in Petition No. 169/TT/2014.
- c) WAROD, Rate of IWC and O&M Expenses as per order dated 26.11.2015 in Petition No. 169/TT/2014.

20. In view of the above, the revised transmission charges approved for the transmission asset for the 2009-14 tariff period are as follows:

(₹ in lakh)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	100.99	100.99	100.99	34.17	34.17
Interest on Loan	54.21	41.21	35.53	34.20	35.27
Return on Equity	53.23	55.19	55.24	55.24	55.91
O&M Expenses	86.93	91.88	97.16	102.75	108.62
Interest on Working Capital	8.69	8.71	8.86	7.72	8.05
<b>Total</b>	<b>304.06</b>	<b>297.98</b>	<b>297.78</b>	<b>234.08</b>	<b>242.01</b>



21. AFC allowed vide order dated 26.11.2015 in Petition No. 169/TT/2014 for 2009-14 tariff period, the revised AFC claimed in the instant Petition and AFC approved in the instant order is as follows:

Particulars	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
AFC allowed vide order dated 26.11.2015 in Petition No. 169/TT/2014	304.06	297.98	297.78	234.08	242.02
AFC claimed by the Petitioner in the Petition	303.81	297.76	297.57	233.85	241.78
AFC approved in the instant order	304.06	297.98	297.78	234.08	242.01

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

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

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	33.97	33.97	34.99	36.07	36.07
Interest on Loan	35.73	43.21	40.13	35.75	32.29
Return on Equity	55.95	56.20	57.31	58.45	58.61
O&M Expenses	99.73	103.06	106.49	110.00	113.63
Interest on Working Capital	8.40	8.76	8.93	9.08	9.20
<b>Total</b>	<b>233.78</b>	<b>245.20</b>	<b>247.85</b>	<b>249.35</b>	<b>249.80</b>

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

	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	8.31	8.59	8.87	9.17	9.47
Maintenance Spares	14.96	15.46	15.97	16.50	17.04
Receivables	38.96	40.87	41.31	41.56	41.63
<b>Total Working Capital</b>	<b>62.23</b>	<b>64.92</b>	<b>66.15</b>	<b>67.23</b>	<b>68.14</b>
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
<b>Interest on Working Capital</b>	<b>8.40</b>	<b>8.76</b>	<b>8.93</b>	<b>9.08</b>	<b>9.20</b>

### **Capital Cost**

24. The capital cost of the existing project has been calculated in accordance with Regulation 9(3) of the 2014 Tariff Regulations.



25. The capital cost as on 31.3.2014 is ₹1898.23 lakh for the transmission asset as admitted by the Commission *vide* order dated 26.11.2015 in Petition No. 169/TT/2014 and the same has been considered as opening capital cost as on 1.4.2014 by the Commission to work out true-up tariff for the 2014-19 tariff period.

**Additional Capital Expenditure (ACE)**

26. The petitioner had not claimed any ACE for 2014-19 tariff period in Petition No. 169/TT/2014. Accordingly, the Commission did not allow any ACE for transmission asset for the 2014-19 tariff period *vide* order dated 26.11.2015 in Petition No. 169/TT/2014.

27. However, the Petitioner in the instant true up petition has submitted ACE of ₹38.54 lakh during the year 2016-17 for replacement of old isolators with new isolators at Samaguri sub-station as approved in 15<sup>th</sup> NERPC meeting dated 21.8.2015 and has claimed ACE under Regulation 14(3)(ix) of the 2014 Tariff Regulations (additional capital expenditure after the cut-off date, which has become necessary for successful and efficient operation of transmission system). The details of ACE claimed by the Petitioner are as follows:

(₹ in lakh)		
Capital Cost admitted (as on 1.4.2014)	ACE	Total Capital Cost claimed (as on 31.3.2019)
	2016-17	
1898.23	38.54	1936.77

28. In response to technical validation letter dated 30.6.2021, the Petitioner *vide* affidavit dated 13.7.2021 has submitted the following vendor-wise details of ACE amounting to ₹38.54 lakh during the year 2016-17:

(₹ in lakh)			
Sr. No.	Party Name	Head	Amount
1	G.R. Power switchgear Limited	Sub-station	38.54





29. We have considered the submissions made by the Petitioner. The Petitioner has submitted the Auditor Certificate dated 31.7.2019 along with the petition in respect of replacement of old isolators with new isolators at Samaguri sub-station as approved in 15<sup>th</sup> NERPC meeting dated 21.8.2015. ACE claimed by the Petitioner towards replacement of insulators at Samaguri Sub-station is allowed under Regulation 14(3)(ix) of the 2014 Tariff Regulations. ACE allowed for the transmission assets from 1.4.2014 to 31.3.2019 is as follows:

(₹ in lakh)		
Capital Cost admitted (as on 1.4.2014)	ACE	Total Capital Cost claimed (as on 31.3.2019)
	2016-17	
1898.23	38.54	1936.77

### **Debt-Equity ratio**

30. The debt-equity ratio has been allowed in accordance with Regulation 19(3) of the 2014 Tariff Regulations. Accordingly, the debt-equity ratio of 84.98:15.02 for the period ending on 31.3.2014 has been considered for the purpose of determination of tariff and truing up of the tariff of the transmission asset for the 2014-19 tariff period. The details of debt-equity ratio in respect of the transmission asset as on 1.4.2014 and as on 31.3.2019 of the transmission asset are as follows:

Funding	Capital Cost (as on 1.4.2014) (₹ in lakh)	(in %)	ACE (2016-17) (₹ in lakh)	(in %)	Capital Cost (as on 31.3.2019) (₹ in lakh)	(in %)
Debt	1613.15	84.98	26.98	70.00	1640.13	84.68
Equity	285.08	15.02	11.56	30.00	296.64	15.32
<b>Total</b>	<b>1898.23</b>	<b>100.00</b>	<b>38.54</b>	<b>100.00</b>	<b>1936.77</b>	<b>100.00</b>

### **Depreciation**

31. The transmission asset has completed 12 years of life. The balance useful life of the transmission asset has already been calculated as 19 years as on 31.3.2014 as per order dated 22.9.2010 in Petition No. 110/2010. The remaining depreciable value of ₹649.34 lakh as on 31.3.2014 has been spread across the balance useful life of 19



years in accordance with Regulation 27(5) of the 2014 Tariff Regulations. Accordingly, the trued-up depreciation allowed for the 2014-19 period is as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	1898.23	1898.23	1898.23	1936.77	1936.77
ACE	0.00	0.00	38.54	0.00	0.00
Closing Gross Block	1898.23	1898.23	1936.77	1936.77	1936.77
Average Gross Block	1898.23	1898.23	1917.50	1936.77	1936.77
Weighted average rate of Depreciation (WAROD) (%)	1.80	1.80	1.84	1.87	1.87
Balance useful life of the asset	19	18	17	16	15
Elapsed life at the beginning of the year	14	15	16	17	18
Depreciable Value	1708.41	1708.41	1725.75	1743.09	1743.09
<b>Depreciation during the year</b>	<b>34.18</b>	<b>34.18</b>	<b>35.20</b>	<b>36.28</b>	<b>36.28</b>
Aggregate Cumulative Depreciation at the end of the year	1093.24	1127.42	1162.61	1198.89	1235.17
Remaining Aggregate Depreciable Value at the end of the year	615.17	580.99	563.14	544.20	507.92

32. Accordingly, depreciation allowed *vide* order dated 26.11.2015 in Petition No. 169/TT/2014, claimed by the Petitioner in the instant Petition and trued-up depreciation is as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed <i>vide</i> order dated 26.11.2015 in Petition No. 169/TT/2014	34.17	34.17	34.17	34.17	34.17
Claimed by the Petitioner in the Petition	33.97	33.97	34.99	36.07	36.07
Approved after true-up in this order	34.18	34.18	35.20	36.28	36.28

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

33. The Petitioner has claimed the weighted average rate of IoL based on its actual loan portfolio and rate of interest. We have considered the submissions of the Petitioner. IoL has been calculated based on actual interest rate submitted by the Petitioner in accordance with Regulation 26 of the 2014 Tariff Regulations. The trued-up IoL approved in respect of the transmission asset is as follows:



(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	1613.15	1613.15	1613.15	1640.13	1640.13
Cumulative Repayments up to Previous Year	1059.07	1093.24	1127.42	1162.61	1198.89
Net Loan-Opening	554.08	519.91	485.73	477.51	441.23
Additions due to ACE	0.00	0.00	26.98	0.00	0.00
Repayment during the year	34.18	34.18	35.20	36.28	36.28
Net Loan-Closing	519.91	485.73	477.51	441.23	404.95
Average Loan	537.00	502.82	481.62	459.37	423.09
Weighted Average Rate of Interest on Loan (%)	6.7002	8.6540	8.3928	7.8370	7.6861
<b>Interest on Loan</b>	<b>35.98</b>	<b>43.51</b>	<b>40.42</b>	<b>36.00</b>	<b>32.52</b>

34. Accordingly, IoL allowed *vide* order dated 26.11.2015 in Petition No. 169/TT/2014, claimed by the Petitioner in the instant Petition and true-up IoL are as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed <i>vide</i> order dated 26.11.2015 in Petition No. 169/TT/2014	34.74	32.53	30.32	28.11	25.90
Claimed by the Petitioner in the Petition	35.73	43.21	40.13	35.75	32.29
Approved after true-up in this order	35.98	43.51	40.42	36.00	32.52

### **Return on Equity (RoE)**

35. The Petitioner has claimed RoE for the transmission 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 period:

Year	Claimed effective tax (in %)	Grossed-up RoE (in %) [(Base Rate)/(1-t)]
2014-15	21.018	19.625
2015-16	21.382	19.716
2016-17	21.338	19.705
2017-18	21.337	19.704
2018-19	21.549	19.758



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

Year	Notified MAT rates (in %) (inclusive of surcharge & cess)	Effective tax (in %)
2014-15	20.961	20.961
2015-16	21.342	21.342
2016-17	21.342	21.342
2017-18	21.342	21.342
2018-19	21.549	21.549

37. 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, which are as follows:

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

38. The Petitioner has claimed RoE for the 2014-19 period after grossing up the RoE of 15.50% with Effective Tax rates (based on MAT rates) each year. RoE is trued-up on the basis of the MAT rate applicable in the respective years and is allowed as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	285.08	285.08	285.08	296.64	296.64
Additions	0.00	0.00	11.56	0.00	0.00
Closing Equity	285.08	285.08	296.64	296.64	296.64
Average Equity	285.08	285.08	290.86	296.64	296.64
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	20.961	21.342	21.342	21.342	21.549
Rate of Return on Equity (in %)	19.610	19.705	19.705	19.705	19.758
<b>Return on Equity</b>	<b>55.90</b>	<b>56.18</b>	<b>57.31</b>	<b>58.45</b>	<b>58.61</b>



39. Accordingly, RoE allowed *vide* order dated 26.11.2015 in Petition No. 169/TT/2014, claimed by the Petitioner in the instant Petition and true-up RoE are as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed <i>vide</i> order dated 26.11.2015 in Petition No. 169/TT/2014	55.91	55.91	55.91	55.91	55.91
Claimed by the Petitioner in the Petition	55.95	56.20	57.31	58.45	58.61
Approved after true-up in this order	55.90	56.18	57.31	58.45	58.61

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

40. The O&M Expenses for the transmission asset claimed by the Petitioner are as follows:

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Sub-station Bay</b>					
200 kV Misa: Kopili III Bay	1 number				
200 kV Kopili: Misa III Bay	1 number				
<b>Transmission lines</b>					
S/C (Single Conductor)					
220 kV S/C Kopili-Misa-3 Transmission Line	75.788 km				
<b>Total O&amp;M expenses (₹ in lakh)</b>	<b>99.73</b>	<b>103.06</b>	<b>106.49</b>	<b>110.00</b>	<b>113.63</b>

41. We have considered the submissions of the Petitioner. The O&M Expenses determined are in line with the norms specified in Regulation 29(3) of the 2014 Tariff Regulations and are allowed as follows:

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Sub-station Bay</b>					
200 kV Misa: Kopili III Bay	1 number				
200 kV Kopili: Misa III Bay	1 number				
Norms (₹ lakh/bays)	42.21	43.61	45.06	46.55	48.10
<b>O&amp;M expenses (₹ in lakh)</b>	<b>84.42</b>	<b>87.22</b>	<b>90.12</b>	<b>93.10</b>	<b>96.20</b>
<b>Transmission lines</b>					
S/C (Single Conductor)					
220 kV S/C KOPILI-MISA-3 Transmission Line	75.788 km				
Norms (₹ lakh/bays)	0.202	0.209	0.216	0.223	0.230
<b>O&amp;M expenses (₹ in lakh)</b>	<b>15.31</b>	<b>15.84</b>	<b>16.37</b>	<b>16.90</b>	<b>17.43</b>
<b>Total O&amp;M expenses (₹ in lakh)</b>	<b>99.73</b>	<b>103.06</b>	<b>106.49</b>	<b>110.00</b>	<b>113.63</b>



42. Accordingly, O&M Expenses allowed *vide* order dated 26.11.2015 in Petition No. 169/TT/2014, claimed by the Petitioner in the instant Petition and trued-up O&M Expenses are as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed <i>vide</i> order dated 26.11.2015 in Petition No. 169/TT/2014	99.73	103.06	106.49	110.00	113.63
Claimed by the Petitioner in the instant Petition	99.73	103.06	106.49	110.00	113.63
Approved after true-up in this order	99.73	103.06	106.49	110.00	113.63

**Interest on Working Capital (IWC)**

43. IWC has been worked out as per the methodology provided in Regulation 28 of the 2014 Tariff Regulations and allowed as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Working Capital towards O&M Expenses (O&M Expenses for 1 month)	8.31	8.59	8.87	9.17	9.47
Working Capital towards Maintenance Spares (15% of O&M Expenses)	14.96	15.46	15.97	16.50	17.04
Working Capital towards Receivables (Equivalent to 2 months of annual fixed cost)	39.03	40.95	41.39	41.64	41.71
<b>Total Working Capital</b>	<b>62.30</b>	<b>65.00</b>	<b>66.24</b>	<b>67.30</b>	<b>68.22</b>
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
<b>Interest on Working Capital</b>	<b>8.41</b>	<b>8.77</b>	<b>8.94</b>	<b>9.09</b>	<b>9.21</b>

44. Accordingly, IWC allowed *vide* order dated 26.11.2015 in Petition No. 169/TT/2014, claimed by the Petitioner in the instant Petition and trued-up IWC are as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
AFC allowed <i>vide</i> order dated 26.11.2015 in Petition No. 169/TT/2014	8.38	8.52	8.65	8.80	8.95
Claimed by the Petitioner in the instant Petition	8.40	8.76	8.93	9.08	9.20
Approved after true-up in this order	8.41	8.77	8.94	9.09	9.21



### **Approved Annual Fixed Charges of the 2014-19 Tariff Period**

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

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	34.18	34.18	35.20	36.28	36.28
Interest on Loan	35.98	43.51	40.42	36.00	32.52
Return on Equity	55.90	56.18	57.31	58.45	58.61
O&M Expenses	99.73	103.06	106.49	110.00	113.63
Interest on Working Capital	8.41	8.77	8.94	9.09	9.21
<b>Total</b>	<b>234.20</b>	<b>245.70</b>	<b>248.36</b>	<b>249.82</b>	<b>250.25</b>

46. Accordingly, Annual Transmission Charges as allowed *vide* order dated 26.11.2015 in Petition No. 169/TT/2014, as claimed by the Petitioner and as approved after truing up in the instant order is as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
AFC allowed <i>vide</i> order dated 26.11.2015 in Petition No. 169/TT/2014	232.93	234.19	235.54	236.99	238.56
AFC claimed by the Petitioner in the Petition	233.78	245.20	247.85	249.35	249.80
AFC approved in the instant order	234.20	245.70	248.36	249.82	250.25

### **DETERMINATION OF ANNUAL FIXED CHARGES FOR THE 2019-24 PERIOD**

47. The Petitioner has claimed the transmission charges for the 2019-24 period in respect of transmission asset and revised the claim of transmission charges (on account of an inadvertent error in adjusting the de-capitalisation) *vide* affidavit dated 13.7.2021 filed in response to technical validation letter. The details of the transmission charges claimed for the 2019-24 period are as follows:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	44.88	35.92	35.94	35.92	35.94
Interest on Loan	29.62	26.48	23.60	20.72	17.86
Return on Equity	55.41	55.11	55.11	55.11	55.11
O&M Expenses	65.58	67.76	70.16	72.52	75.04
Interest on Working Capital	4.69	4.73	4.79	4.85	4.91
<b>Total</b>	<b>200.18</b>	<b>190.00</b>	<b>189.60</b>	<b>189.12</b>	<b>188.86</b>





48. The Petitioner has claimed the following IWC for the 2019-24 period in respect of transmission asset:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	5.47	5.65	5.85	6.04	6.25
Maintenance Spares	9.84	10.16	10.52	10.88	11.26
Receivables	23.63	23.42	23.38	23.32	23.32
<b>Total Working Capital</b>	<b>38.94</b>	<b>39.23</b>	<b>39.75</b>	<b>40.24</b>	<b>40.73</b>
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
<b>Interest on Working Capital</b>	<b>4.69</b>	<b>4.73</b>	<b>4.79</b>	<b>4.85</b>	<b>4.91</b>

### Capital Cost

49. Regulation 19 of the 2019 Tariff Regulations provide as follows:

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

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

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



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

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

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

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

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

*“(5) The following shall be excluded from the Capital Cost of the existing and new projects:*

- (a) The 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.“*

50. The Petitioner has claimed capital cost of ₹1936.77 lakh for the transmission asset, which is the same as worked out by the Commission. Accordingly, ₹1936.77 lakh has been considered as opening capital cost as on 1.4.2019 for determination of tariff for the transmission asset in accordance with Regulation 19 of the 2019 Tariff Regulations.

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

51. Regulation 25 of the 2019 Tariff Regulations provides as follows:

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

....

- (2) *In case of replacement of assets deployed under the original scope of the existing project after cut-off date, the additional capitalization may be admitted by the Commission, after making necessary adjustments in the gross fixed assets and the cumulative depreciation, subject to prudence check on the following grounds::*
  - (a) The useful life of the assets is not commensurate with the useful life of the project and such assets have been fully depreciated in accordance with the provisions of these regulations;*
  - (b) The replacement of the asset or equipment is necessary on account of change in law or Force Majeure conditions;*
  - (c) The replacement of such asset or equipment is necessary on account of obsolescence of technology; and*
  - (d) The replacement of such asset or equipment has otherwise been allowed by the Commission.”*

52. The Petitioner has claimed ACE of ₹7.63 lakh and de-capitalisation of ₹35.92 lakh during 2019-20 under Regulations 25(2)(c) of the 2019 Tariff Regulations



(replacement of such asset or equipment after the cut-off date, which has become necessary on account of obsolescence of technology). The Petitioner has submitted that ACE and de-capitalisation claimed is for replacement of old isolators with new isolators at Samaguri sub-station as approved in 15<sup>th</sup> NERPC meeting dated 21.8.2015. The details are summarised as follows:

(₹ in lakh)			
Capital Cost (as on 1.4.2019)	ACE (2019-20)	De-capitalisation (2019-20)	Capital Cost (as on 31.3.2024)
1936.77	7.63	35.92	1908.48

53. In response to technical validation letter, the Petitioner *vide* affidavit dated 13.7.2021 has submitted the package-wise breakup of ACE incurred during 2019-24 as follows:

(₹ in lakh)			
Sr. No.	Party Name	Head	Amount
1	G.R. Power switchgear Limited	Sub-station	7.63

54. We have considered the submissions of the Petitioner. ACE claimed by the Petitioner has been allowed under Regulation 25(2)(c) of the 2019 Tariff Regulations, as it is towards replacement of isolators which is necessary for efficient operation of the transmission system. The total capital expenditure as on 31.3.2024 is within the apportioned approved cost of ₹2237 lakh. Accordingly, ACE for 2019-20 and the capital cost as on 31.3.2024 for the transmission asset considered are as follows:

(₹ in lakh)			
Capital Cost admitted (as on 1.4.2019)	ACE (2019-20)	De-capitalisation (2019-20)	Capital Cost allowed (as on 31.3.2024)
1936.77	7.63	35.92	1908.48

55. Therefore, the admitted capital cost of ₹1936.77 lakh as on 1.4.2019 and ₹1908.48 lakh as on 31.3.2024 has been considered for the purpose of determination of transmission tariff for the 2019-24 period in accordance with Regulation 19 of the 2019 Tariff Regulations.



## **Debt-Equity ratio**

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

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

Provided that:

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

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

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

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

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

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

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

(5) Any expenditure incurred or projected to be incurred on or after 1.4.2019 as may be admitted by the Commission as ACE 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.”



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

Funding	Capital Cost (as on 1.4.2019) (₹ in lakh) (A)	(in %)	ACE in 2019-20 (₹ in lakh) (B)	(in %)	De- capitalisation in 2019-20 (₹ in lakh) (C)	(in %)	Capital Cost (as on 31.3.2024) (₹ in lakh) (D)=(A)+(B)-(C)	(in %)
Debt	1640.13	84.68	5.34	70.00	30.42	84.68	1615.05	84.62
Equity	296.64	15.32	2.29	30.00	5.50	15.32	293.43	15.38
<b>Total</b>	<b>1936.77</b>	<b>100.00</b>	<b>7.63</b>	<b>100.00</b>	<b>35.92</b>	<b>100.00</b>	<b>1908.48</b>	<b>100.00</b>

### Depreciation

58. Regulations 33(1), 33(2) and 33(5) of the 2019 Tariff Regulations provide as follows: -

**“33. Depreciation:** (1) Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission project or element thereof including communication project. In case of the tariff of all the units of a generating station or all elements of a transmission project including communication project 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 project 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 project, 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 project, weighted average life for the generating station of the transmission project 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.”

“(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.”*





59. As the transmission asset has completed 12 years of useful life, the remaining depreciable value is spread over the balance useful life of the asset in the 2019-24 period as specified in Regulation 33(5) of 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. Further, cumulative depreciation on account of de-capitalisation of ₹35.92 lakh amounting to ₹24.36 lakh is deducted from cumulative depreciation at the end of the year in 2019-20. The depreciation allowed for the transmission asset for the 2019-24 period is as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	1936.77	1908.48	1908.48	1908.48	1908.48
ACE	7.63	0.00	0.00	0.00	0.00
Less: De-capitalisation	35.92	0.00	0.00	0.00	0.00
Closing Gross Block	1908.48	1908.48	1908.48	1908.48	1908.48
Average Gross Block	1922.63	1908.48	1908.48	1908.48	1908.48
Weighted average rate of Depreciation (WAROD) (in %)	1.84	1.90	1.90	1.90	1.90
Balance useful life of the asset (Year)	14	13	12	11	10
Lapsed life at the beginning of the year (Year)	19	20	21	22	23
Aggregate Depreciable Value	1730.36	1717.63	1717.63	1717.63	1717.63
<b>Depreciation during the year</b>	<b>35.37</b>	<b>36.27</b>	<b>36.27</b>	<b>36.27</b>	<b>36.27</b>
Cumulative depreciation for decapitalization	24.36	0.00	0.00	0.00	0.00
Cumulative Depreciation at the end of the year	1246.18	1282.45	1318.71	1354.98	1391.24
Remaining Depreciable Value at the end of the year	484.18	435.18	398.92	362.65	326.39

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

60. Regulation 32 of the 2019 Tariff Regulations provides that:

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

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





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

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

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

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

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

(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.”

61. 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 the 2019-24 tariff period may be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true up. IoL has been allowed in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL allowed for the transmission asset for the 2019-24 tariff period is as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	1640.13	1615.05	1615.05	1615.05	1615.05
Cumulative Repayments up to Previous Year	1235.17	1250.93	1287.20	1323.46	1359.73
Net Loan-Opening	404.95	364.12	327.85	291.59	255.32
Additions due to ACE	5.34	0.00	0.00	0.00	0.00



De-capitalisation	30.42	0.00	0.00	0.00	0.00
Repayment during the year	35.37	36.27	36.27	36.27	36.27
Adjustment of cumulative repayment pertaining to decapitalised asset	19.61	0.00	0.00	0.00	0.00
Net Loan-Closing	364.12	327.85	291.59	255.32	219.06
Average Loan	384.54	345.98	309.72	273.45	237.19
Weighted Average Rate of Interest on Loan (in %)	7.7771	7.7480	7.7152	7.6778	7.6347
<b>Interest on Loan</b>	<b>29.91</b>	<b>26.81</b>	<b>23.90</b>	<b>21.00</b>	<b>18.11</b>

### **Return on Equity (RoE)**

62. Regulation 30 and Regulation 31 of the 2019 Tariff Regulations specify as follows:

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

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

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

*Provided further that:*

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

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

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

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



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

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

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

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

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

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

**Illustration-**

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

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

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

- (a) Estimated Gross Income from generation or transmission business for FY 2019-20 is Rs 1,000 crore;
- (b) Estimated Advance Tax for the year on above is Rs 240 crore;
- (c) Effective Tax Rate for the year 2019-20 = Rs 240 Crore / Rs 1000 Crore = 24%;
- (d) Rate of return on equity =  $15.50 / (1 - 0.24) = 20.395\%$ .

(3) The generating company or the transmission licensee, as the case may be, shall true up the grossed up rate of return on equity at the end of every financial year based on actual tax paid together with any additional tax demand



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

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

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	296.64	293.43	293.43	293.43	293.43
Additions due to ACE	2.29	0.00	0.00	0.00	0.00
Decapitalisation	5.50	0.00	0.00	0.00	0.00
Closing Equity	293.43	293.43	293.43	293.43	293.43
Average Equity	295.04	293.43	293.43	293.43	293.43
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (in %)	18.782	18.782	18.782	18.782	18.782
<b>Return on Equity</b>	<b>55.41</b>	<b>55.11</b>	<b>55.11</b>	<b>55.11</b>	<b>55.11</b>

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

64. The O&M expenses claimed by the Petitioner for the transmission asset for the 2019-24 tariff period are as follows:

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Sub-station Bay</b>					
200 kV Misa: Kopili III Bay			1 number		
200 kV Kopili: Misa III Bay			1 number		
<b>Transmission lines</b>					
S/C (Single Conductor)					
220 kV S/C Kopili-Misa-3 Transmission Line			75.788 km		
<b>PLCC (2% of ₹73.15 lakh)</b>					
<b>Total O&amp;M expenses (₹ in lakh)</b>	<b>65.58</b>	<b>67.76</b>	<b>70.16</b>	<b>72.52</b>	<b>75.04</b>



65. The norms specified under Regulation 35(3)(a) of the 2019 Tariff Regulations is as follows:

**“35. Operation and Maintenance Expenses:**

...

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

<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
<b>Norms for sub-station Bays (₹ Lakh per bay)</b>					
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
<b>Norms for Transformers (₹ Lakh per MVA)</b>					
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
<b>Norms for AC and HVDC lines (₹ Lakh per km)</b>					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773
<b>Norms for HVDC stations</b>					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	834	864	894	925	958
Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)	1,666	1,725	1,785	1,848	1,913
500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)	2,252	2,331	2,413	2,498	2,586
±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)	2,468	2,555	2,645	2,738	2,834



<i>±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)</i>	1,696	1,756	1,817	1,881	1,947
<i>±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)</i>	2,563	2,653	2,746	2,842	2,942

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

*Provided further that:*

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

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

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

*Provided that the transmission licensee shall submit the assessment of the security requirement and estimated security expenses, the details of year-wise*





*actual capital spares consumed at the time of truing up with appropriate justification.*

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

66. We have considered the submissions of the Petitioner. The Petitioner has claimed O&M Expenses separately for PLCC under Regulation 35(4) of the 2019 Tariff Regulations @2% of its original project cost in the instant petition. The Petitioner has made similar claim in other petitions as well. Though PLCC is a communication system, it has been considered as part of the 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.

67. The O&M expenses have been worked out for the transmission asset in accordance with Regulation 35(3)(a) of the 2019 Tariff Regulations and the same are as follows:

<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
<b>Sub-station Bay</b>					
200 kV Misa: Kopili III Bay	1 number				
200 kV Kopili: Misa III Bay	1 number				
Norms (₹ lakh/bays)	22.51	23.3	24.12	24.96	25.84
<b>O&amp;M expenses (₹ in lakh)</b>	<b>45.02</b>	<b>46.60</b>	<b>48.24</b>	<b>49.92</b>	<b>51.68</b>
<b>Transmission lines</b>					
S/C (Single Conductor)					
220 kV S/C Kopili-Misa-3 Transmission Line	75.788 km				
Norms (₹ lakh/bays)	0.252	0.26	0.27	0.279	0.289
<b>O&amp;M expenses (₹ in lakh)</b>	<b>19.10</b>	<b>19.70</b>	<b>20.46</b>	<b>21.14</b>	<b>21.90</b>
<b>Total O&amp;M expenses (₹ in lakh)</b>	<b>64.12</b>	<b>66.30</b>	<b>68.70</b>	<b>71.06</b>	<b>73.58</b>



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

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

#### ***“34. Interest on Working Capital***

*(1) ...*

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

- i. Receivables equivalent to 45 days of fixed cost;*
- ii. Maintenance spares @ 15% of operation and maintenance expenses including security expenses; and*
- iii. Operation and maintenance expenses, including security expenses for one month*

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

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

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

*“3. Definitions ...*

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

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

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





10.50% (SBI 1-year MCLR applicable as on 1.4.2020 of 7.00% plus 350 basis points). The components of the working capital and interest allowed thereon for the transmission asset are as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Working Capital towards O&M Expenses (O&M Expenses for 1 month)	5.34	5.53	5.73	5.92	6.13
Working Capital towards Maintenance Spares (15% of O&M Expenses)	9.62	9.95	10.31	10.66	11.04
Working Capital towards Receivables (Equivalent to 45 days of annual transmission charges)	23.29	23.28	23.19	23.13	23.03
<b>Total Working Capital</b>	<b>38.25</b>	<b>38.75</b>	<b>39.22</b>	<b>39.71</b>	<b>40.20</b>
Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
<b>Interest on Working Capital</b>	<b>4.61</b>	<b>4.36</b>	<b>4.12</b>	<b>4.17</b>	<b>4.22</b>

#### **Annual Fixed Charges of the 2019-24 Tariff Period**

71. The transmission charges allowed for the transmission asset for the 2019-24 tariff period are as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	35.37	36.27	36.27	36.27	36.27
Interest on Loan	29.91	26.81	23.90	21.00	18.11
Return on Equity	55.41	55.11	55.11	55.11	55.11
O&M Expenses	64.12	66.30	68.70	71.06	73.58
Interest on Working Capital	4.61	4.36	4.12	4.17	4.22
<b>Total</b>	<b>189.42</b>	<b>188.85</b>	<b>188.09</b>	<b>187.61</b>	<b>187.29</b>

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

72. 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**

73. The Petitioner shall be entitled for reimbursement of licence fee in accordance with Regulation 70(4) of the 2019 Tariff Regulations for 2019-24 tariff period.

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

### **Goods and Services Tax**

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

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

### **Security Expenses**

77. 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 consequential IWC.

78. We have considered the submissions of the Petitioner. The Petitioner has claimed consolidated security expenses on projected basis for 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19 in Petition No. 260/MP/2020.



The Commission vide order dated 3.8.2021 in Petition No. 260/MP/2020 approved security expenses from 1.4.2019 to 31.3.2024. Therefore, security expenses will be shared in terms of the order dated 3.8.2021 in Petition No. 260/MP/2020. Therefore, the Petitioner's prayer in the instant petition for allowing it to file a separate petition for claiming the overall security expenses and consequential IWC has become infructuous.

### **Capital Spares**

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

### **Sharing of Transmission Charges**

80. During the tariff periods 2004-09 and 2009-14 (up to 30.6.2011), the transmission charges for inter-State transmission systems were being shared in accordance with the tariff regulations for the respective tariff periods. With effect from 1.7.2011, sharing of transmission charges for inter-State transmission systems was governed by the provisions of the 2010 Sharing Regulations. However, with effect from 1.11.2020, sharing of transmission charges is governed by the Central Electricity Regulatory Commission (Sharing of Transmission Charges and Losses) Regulations, 2020 (in short "the 2020 Sharing Regulations"). Accordingly, the liabilities of the DICs for arrears of the transmission charges determined through this order shall be computed DIC-wise in accordance with the provisions of respective Tariff Regulations and shall be recovered from the concerned DICs through Bill 2 under Regulation 15(2)(b) of the 2020 Sharing Regulations. Billing, collection and disbursement of transmission charges for subsequent period shall be recovered in terms of the



provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.

81. To summarise:

- a. The revised Annual Fixed Charges approved for the transmission asset as per the APTEL’s judgements are as follows:

(₹ in lakh)		
Particulars	2007-08	2008-09
Annual Fixed Charges	310.78	316.77

- b. The consequential revision of Annual Fixed Charges approved for the transmission asset for the 2009-14 tariff period are as follows:

(₹ in lakh)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Annual Fixed Charges	304.06	297.98	297.78	234.08	242.01

- c. The trued-up Annual Fixed Charges approved for the transmission asset for the 2014-19 tariff period are as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Annual Fixed Charges	234.20	245.70	248.36	249.82	250.25

- d. Annual Fixed Charges allowed for the 2019-24 tariff period in this order are as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Fixed Charges	189.42	188.85	188.09	187.61	187.29

82. This order disposes of Petition No. 214/TT/2020

sd/-  
(P. K. Singh)  
Member

sd/-  
(Arun Goyal)  
Member

sd/-  
(I. S. Jha)  
Member

sd/-  
(P. K. Pujari)  
Chairperson

