

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 263/TT/2019**

**Coram:**

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

**Date of order : 16.06.2021**

**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 2001-04, 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 for 315 MVA Transformer at Jeypore Sub-station along with associated bays in Eastern Region.

**And in the matter of:**

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

**.....Petitioner**

**Versus**

1. Bihar State Power (Holding) Company Ltd.,  
(Formerly Bihar State Electricity Board -BSEB),  
Vidyut Bhavan, Bailey Road, Patna – 800001.
2. West Bengal State Electricity Distribution Company Ltd.,  
Bidyut Bhawan, Bidhan Nagar,  
Block DJ, Sector-II, Salt Lake City,  
Calcutta – 700091.
3. Grid Corporation of Orissa Ltd.,  
Shahid Nagar, Bhubaneswar – 751007.
4. Jharkhand State Electricity Board,  
In front of Main Secretariat,  
Doranda, Ranchi – 834002.



5. Damodar Valley Corporation,  
DVC Tower, Maniktala,  
Civic Centre, VIP Road, Calcutta – 700054.

6. Power Department,  
Government of Sikkim,  
Gangtok – 737101.

...Respondent(s)

**For Petitioner:** Shri S. S. Raju, PGCIL  
Shri A. K. Verma, PGCIL  
Shri B. Dash, PGCIL  
Shri Ved Prakash Rastogi, PGCIL

**For Respondents:** None

### **ORDER**

The instant petition has been filed by Power Grid Corporation of India Limited, a deemed transmission licensee, for revision of transmission tariff of the 2001-04, 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 (hereinafter referred to as “the 2014 Tariff Regulations”) and for determination of tariff for the 2019-24 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) in respect of the following transmission asset in Eastern Region:

315 MVA Transformer at Jeypore Sub-station along with associated bays

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

*“1) Approve the revised Transmission Tariff for 2001-04 block, 2004-09 block and transmission tariff for 2009-14 block for the asset covered under this petition, as per para 8 above.*

*2) 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.*



3) Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulation 2014 and Tariff regulations 2019 as per para 9 and 10 above for respective block.

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

5) Allow the petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the respondents in terms of Regulation 70 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.

6) Allow the petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2019-24 period, if any, from the respondents.

7) Allow the petitioner to recover FERV on the foreign loans deployed as provided under clause 68 of the tariff regulations, 2019.

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.”

### **Backdrop of the case**

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

(a) The Investment Approval (I.A.) for the transmission asset was accorded by the Board of Directors of PGCIL vide letter dated 2.11.1999 at an estimated cost of ₹876 lakh including IDC of ₹79 lakh based on 3<sup>rd</sup> quarter, 1998 price level.



(b) The entire scope of work as per the I.A. has been covered in the instant petition as it comprises single transmission asset, namely, 315MVA Transformer at Jeypore Sub-station along with associated bays. The transmission asset was put under commercial operation on 1.10.2002.

(c) The transmission tariff for the transmission asset from COD to 31.3.2004 was allowed vide order dated 9.3.2005 in Petition No. 139/2002.

(d) The tariff for the transmission asset from 1.4.2004 to 31.3.2009 was allowed vide order dated 27.1.2006 in Petition No.50/2005. ACE of ₹9.58 lakh incurred during 2001-04 tariff period and decapitalization of ₹47.49 lakh on account of FERV had been allowed vide order dated 27.1.2006 in Petition No. 50/2005.

(e) The transmission tariff for the transmission asset from 1.4.2009 to 31.3.2014 was allowed vide order dated 4.11.2010 in Petition No. 125/2010. Further, the tariff for the 2009-14 period was trued-up and tariff for the period from 1.4.2014 to 31.3.2019 was allowed vide order dated 8.1.2016 in Petition No. 223/TT/2014.

(f) The Petitioner has sought revision of transmission tariff allowed for the 2001-04 and 2004-09 tariff periods 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 the APTEL dated 22.1.2007 and 13.6.2007 in Appeal Nos. 81/2005 and 139/2006 respectively. The Petitioner has sought consequential revision of tariff allowed for the 2009-14 tariff period and truing up of tariff of 2014-19 tariff period and determination of transmission tariff for 2019-24 tariff period for the transmission asset.

(g) 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 has considered four issues and upheld the Commission's decision in some of the issues. The issues considered by APTEL and its decision are as given in the following table:



<b>Sr. No.</b>	<b>Issue</b>	<b>APTEL's decision/direction</b>
1	Whether 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 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

(h) APTEL in its judgment dated 13.6.2007 in Appeal No. 139 of 2006 and batch matters pertaining to generating stations of NTPC had considered 9 issues. Some of the issues considered pertain purely to generating stations. The issues considered and the decision of APTEL are given in the following table:

<b>Sr. No.</b>	<b>Issue</b>	<b>APTEL's decision/direction</b>
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-capitalisation 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 Appeal 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.

(i) The Commission and certain interested parties preferred Civil Appeals against the APTEL's judgments before the Hon'ble Supreme Court of India in 2007. The Appeals were admitted and initially a 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 the 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 order dated 10.4.2018, dismissed the said civil appeals. Thus, the said order of the APTEL has attained finality.

(l) Consequent to the Hon'ble Supreme Court's order 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 separately for the asset at the time of filing of truing up of the petitions for the 2014-19 tariff period in respect of the concerned transmission assets.

(m) Accordingly, the Petitioner has sought revision of transmission tariff approved for the 2004-09 tariff period on account of change in IoL and IWC to



the extent of revision in IoL and in Maintenance Spares in terms of the APTEL's judgements dated 22.1.2007 and 13.6.2007.

(n) The instant petition was heard on 6.4.2021 and in view of APTEL's judgments dated 22.1.2007 in Appeal No. 81/2005 and batch matters along with order dated 13.6.2007 in Appeal No. 139/2006 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.

(o) The transmission asset was put under commercial operation on 1.10.2002. The tariff for the transmission asset during 2001-04, 2004-09 and 2009-14 periods was worked out based on the admitted capital cost of the transmission asset as on COD and ACE admitted during the respective tariff periods. Accordingly, considering the admitted capital cost as on COD and admitted ACE, tariff is being revised for 2001-04, 2004-09 and 2009-14 periods. The details of admitted capital cost as on COD and admitted ACE in respect of the transmission asset are follows:

(₹ In lakh)		
Admitted Expenditure up to COD	Additional Capital Expenditure	Admitted Capital Cost as on 31.3.2004
	2001-04	
747.73	9.58	757.31

(p) The instant petition was heard on 6.4.2021 and in view of APTEL's judgments dated 22.1.2007 and 13.6.2007 and the order of Hon'ble Supreme Court dated 10.4.2018, tariff is being revised. Period-wise transmission tariff is being re-worked based on the Tariff Regulations applicable for the respective tariff periods and suitable assumptions have been made at certain places and applied, which are indicated.



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

5. The Petitioner has served the petition on the Respondents and notice regarding filing of this petition has been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments or objections have been received from the general public in response to the aforesaid notices published in the newspapers. Bihar State Power (Holding) Company Ltd. (BSPHCL), i.e., Respondent No. 1 has submitted its reply vide affidavit dated 5.11.2020 and has raised issues like grossing up of RoE, prudence check, recovery of statutory charges, floating rate of interest and filing fees. In response, the Petitioner has filed its rejoinder dated 1.4.2021.

6. This order is issued considering the submissions made in the petition and affidavit of the Petitioner dated 30.7.2020, BSPHCL's reply dated 5.11.2020 and Petitioner's rejoinder dated 1.4.2021.

7. Having heard the representatives of the Petitioner and after careful perusal of the material on record, we proceed to dispose of the petition.

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

8. APTEL while dealing with the issue of computation of IoL, in judgment dated 22.1.2007 in Appeal No. 81/2005 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 judgment dated 14.11.2006 in Appeal No. 94 of 2005 and Appeal No. 96 of 2005. APTEL vide its judgment 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 2001-04 and 2004-09 period is to be revised on the basis of the normative debt repayment methodology.

**Re: Additional Capital Expenditure**

9. APTEL in its judgment dated 13.6.2007 in Appeal No.139 of 2006 and batch matters held that ACE after COD should also be considered for computation of maintenance spares. In view of the judgement of APTEL, maintenance spares to be considered for computation of working capital for 2001-04 and 2004-09 period are also required to be revised taking into consideration ACE after COD.

**Re: Depreciation**

10. As regards depreciation, APTEL in its judgment 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 assets for 2001-04 and 2004-09 period is revised in the instant order.

11. The revision of transmission tariff allowed for the 2001-04 and 2004-09 tariff period necessitates the revision of tariff allowed for the 2009-14 tariff period, which is also allowed in the present order. The implementation of the directions of the APTEL in case of the Petitioner remained pending 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 2001-04, 2004-09 and 2009-14 tariff periods. Therefore, the Petitioner is directed not to claim or pay any carrying cost from the beneficiaries for the difference, if any, in the tariff allowed earlier and that allowed in the present 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.

### **Revision of Transmission Charges for the 2001-04, 2004-09 and 2009-14 Tariff Periods**

#### **2001-04 Tariff Period**

12. The Commission vide order dated 9.3.2005 in Petition No. 139/2002 had approved transmission charges for the transmission asset for the 2001-04 period, without taking into account the ACE during the 2001-04 period. Subsequently, the Petitioner filed IA No. 69/2005 in Petition No. 50/2005 claiming ACE of ₹9.58 lakh incurred during 2002-03. The Commission vide order dated 27.1.2006 allowed capitalisation of ₹176.04 lakh for the year 2002-03. The relevant portions of the order dated 27.1.2006 in Petition No.50/2005 are extracted hereunder:

#### ***"Impact of additional capitalization for the years 2001-04***

*39. In the petitions filed by NTPC for approval of revised fixed charges for additional capitalization for the period 1.4.2001 to 31.3.2004, the Commission has decided that additional capital expenditure be added to the gross block as on 1.4.2001 to arrive at gross block as on 1.4.2004 for the purpose of fixation of tariff for the period 2004-05 to 2008-09. The Commission has further ordered that NTPC would be entitled to earn return on equity @ 16% on equity portion of additional capitalization approved and interest on loan at the rate as applicable during 2001-02 to 2003-04. The return on equity and interest on loan are payable on additional capitalization from 1st April of the financial year following the financial year to which additional capital expenditure relates. The entire amount of additional capitalization of ₹9.58 lakh allowed for the*



*year 2002-03 has been considered as equity. Accordingly, the petitioner shall be entitled to recover ROE of ₹1.53 lakh from 1.4.2003 to 31.3.2004 on additional equity of ₹9.58 lakh.”*

13. The transmission charges approved for the 2001-04 period vide order dated 9.3.2005 in Petition No.139/2002 and further revised vide order dated 27.1.2006 in Petition No. 50/2005 on account of ACE during 2002-03 are as follows:

(₹ in lakh)		
Particulars	2002-03	2003-04
Depreciation	13.46	26.92
Return on Equity	7.03	15.59
O&M Expenses	16.77	35.56
Advance against Depreciation	0.00	0.00
Interest on Loan	27.56	54.32
Interest on Working Capital	1.37	2.78
<b>Total</b>	<b>66.19</b>	<b>135.17</b>

14. The Petitioner has claimed the following revised transmission charges for the transmission asset for the 2001-04 period in this petition:

(₹ in lakh)		
Particular	2002-03	2003-04
Depreciation	13.46	26.92
Return on Equity	7.03	15.59
O&M Expenses	16.77	35.56
Advance against Depreciation	0.00	0.00
Interest on Loan	27.56	54.32
Interest on Working Capital	1.37	2.78
<b>Total</b>	<b>66.19</b>	<b>135.17</b>

15. The Petitioner has claimed that the transmission tariff for the 2001-04 period as on COD was approved by the Commission vide order dated 9.3.2005 in Petition No. 139/2002 as ₹747.73 lakh. The Petitioner submitted that the ACE incurred during 2001-04 period and FERV impact has been approved by the Commission vide order dated 27.1.2006 in Petition No.50/2005 for the 2004-09 tariff period since ACE was less than 20% of approved cost but the same was incurred during 2001-04 period.



16. We have considered the Petitioner's submission and perused the order dated 27.1.2006 in Petition No. 50/2005. We find that ACE for year 2002-03 in the said order has been limited for the purposes of RoE only and has been allowed in the following financial year i.e. 2003-04. The tariff is allowed for the transmission asset on the basis of the following:

- a) Admitted capital cost of ₹747.73 lakh as on COD of the transmission asset;
- b) Weighted Average Rate of Interest on actual loan, Weighted Average, Rate of Depreciation, Rate of Interest for Working Capital and O&M Expenses as per order dated 9.3.2005 in Petition No. 139/2002.

17. In view of the above, the revised transmission charges allowed for the transmission asset for the 2001-04 tariff period are as follows:

Particulars	(₹ in lakh)	
	2002-03	2003-04
Depreciation	13.46	26.92
Return on Equity	7.03	15.59
O&M Expenses	16.77	35.56
Advance against Depreciation	0.00	0.00
Interest on Loan	27.56	54.32
Interest on Working Capital	1.37	2.80
<b>Total</b>	<b>66.18</b>	<b>135.19</b>

18. The Annual Fixed Charges (AFC) allowed for 2001-04 tariff period vide order dated 9.3.2005 in Petition No. 139/2002, the revised AFC claimed in the instant petition and AFC allowed in the instant order are as follows:

Particulars	(₹ in lakh)	
	2002-03	2003-04
AFC allowed vide order dated 9.3.2005 in Petition No. 139/2002	66.19	135.17
AFC claimed by the Petitioner in the instant petition	66.19	135.17
AFC approved in the instant order	66.18	135.19

### **2004-09 Tariff Period**

19. The Commission vide order dated 27.1.2006 in Petition No.50/2005 had approved transmission charges for the transmission asset for the 2004-09 tariff



period. The Petitioner has claimed tariff based on capital cost of ₹709.82 after accounting for ACE of ₹9.58 lakh incurred during the 2001-04 tariff period and decapitalization of ₹47.49 lakh on account of FERV. The transmission charges allowed for the 2004-09 tariff period vide order dated 27.1.2006 in Petition No. 50/2005 are as follows:

(₹ in lakh)					
Particular	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	25.55	25.55	25.55	25.55	25.55
Return on Equity	13.64	13.64	13.64	13.64	13.64
O&M Expenses	56.24	58.50	60.84	63.26	65.80
Advance against Depreciation	0.00	11.54	15.87	19.06	22.57
Interest on Loan	46.70	43.46	40.02	36.35	32.43
Interest on Working Capital	3.81	4.06	4.20	4.31	4.43
<b>Total</b>	<b>145.94</b>	<b>156.75</b>	<b>160.12</b>	<b>162.17</b>	<b>164.42</b>

20. The Petitioner has claimed the following revised transmission charges for the transmission asset for the 2004-09 tariff period in this petition:

(₹ in lakh)					
Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	25.55	25.55	25.55	25.55	25.55
Return on Equity	13.64	13.64	13.64	13.64	13.64
O&M Expenses	56.24	58.50	60.84	63.26	65.80
Advance against Depreciation	0.00	2.48	11.53	14.24	17.39
Interest on Loan	46.85	43.95	40.85	37.55	34.03
Interest on Working Capital	3.85	3.95	4.17	4.29	4.41
<b>Total</b>	<b>146.13</b>	<b>148.07</b>	<b>156.59</b>	<b>158.52</b>	<b>160.82</b>

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

- a) Admitted capital cost of ₹709.82 lakh as on 1.4.2004 for the transmission asset;
- b) ACE of ₹9.58 lakh during 2004-09 period and decapitalization of ₹47.49 lakh on account of FERV has been approved vide order dated 27.1.2006 in Petition No. 50/2005;
- c) Weighted Average Rate of Interest on actual loan adopted from order dated 27.1.2006 in Petition No.50/2005; and



d) Weighted Average Rate of Depreciation, Rate of Interest for Working Capital and O&M Expenses as per order dated 27.1.2006 in Petition No.50/2005.

22. In view of the above, the revised transmission charges approved for the transmission asset for the 2004-09 tariff period are as follows:

Particular	(₹ in lakh)				
	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	25.55	25.55	25.55	25.55	25.55
Return on Equity	13.64	13.64	13.64	13.64	13.64
O&M Expenses	56.24	58.50	60.84	63.26	65.80
Advance against Depreciation	0.00	2.48	11.53	14.23	17.38
Interest on Loan	46.85	43.95	40.85	37.55	34.03
Interest on Working Capital	3.82	3.93	4.15	4.26	4.38
<b>Total</b>	<b>146.11</b>	<b>148.04</b>	<b>156.56</b>	<b>158.49</b>	<b>160.79</b>

23. The Annual Fixed Charges (AFC) allowed for 2004-09 tariff period vide order dated 27.1.2006 in Petition No.50/2005, the revised AFC claimed in the instant petition and AFC allowed in the instant order are as follows:

Particulars	(₹ in lakh)				
	2004-05	2005-06	2006-07	2007-08	2008-09
AFC allowed vide order dated 27.1.2006 in Petition No.50/2005	145.94	156.75	160.12	162.17	164.42
AFC claimed by the Petitioner in the instant petition	146.13	148.07	156.59	158.52	160.82
AFC approved in the instant order	146.11	148.04	156.56	158.49	160.79

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

24. The Commission vide order dated 4.11.2010 in Petition No.125/2010 had allowed the tariff for the transmission asset for the 2009-14 tariff period and vide order dated 8.1.2016 in Petition No.223/TT/2014 had trued-up the tariff allowed for the 2009-14 period that was earlier allowed in order dated 4.11.2010 and the same is as follows:

Particulars	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	37.48	37.48	37.48	37.48	37.48



Interest on Loan	24.76	19.53	16.89	15.15	13.69
Return on equity	18.19	18.86	18.88	18.88	19.11
Interest on Working Capital	6.13	6.29	6.51	6.76	7.03
O & M Expenses	89.08	94.18	99.57	105.26	111.28
<b>Total</b>	<b>175.64</b>	<b>176.34</b>	<b>179.33</b>	<b>183.53</b>	<b>188.59</b>

25. The Petitioner has claimed the following revised transmission charges for the transmission asset for the 2009-14 period in this petition:

(₹ in lakh)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	37.48	37.48	37.48	37.48	37.48
Interest on Loan	26.31	20.90	18.22	16.53	15.17
Return on equity	18.19	18.86	18.88	18.88	19.11
Interest on Working Capital	6.16	6.32	6.54	6.78	7.06
O & M Expenses	89.08	94.18	99.57	105.26	111.28
<b>Total</b>	<b>177.22</b>	<b>177.74</b>	<b>180.69</b>	<b>184.93</b>	<b>190.10</b>

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

- a) Admitted capital cost of ₹709.82 lakh for the transmission asset as on 1.4.2009;
- b) No ACE during 2009-14 period;
- c) Weighted Average Rate of Interest on actual loan derived/adopted from Order dated 8.1.2016 in Petition No.223/TT/2014; and
- d) Weighted Average Rate of Depreciation as per order dated 8.1.2016 in Petition No. 223/TT/2014.

27. In view of the above, the revised transmission charges allowed 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	37.48	37.48	37.48	37.48	37.48
Interest on Loan	26.31	20.90	18.22	16.53	15.17
Return on equity	18.19	18.86	18.88	18.88	19.11
Interest on Working Capital	6.16	6.32	6.54	6.78	7.06
O & M Expenses	89.08	94.18	99.57	105.26	111.28
<b>Total</b>	<b>177.23</b>	<b>177.73</b>	<b>180.68</b>	<b>184.93</b>	<b>190.09</b>



28. The Annual Fixed Charges (AFC) allowed for 2009-14 tariff period vide order dated 8.1.2016 in Petition No. 223/TT/2014, the revised AFC claimed in the instant petition and AFC approved in the instant order are as follows:

Particulars	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
AFC allowed vide order dated 8.1.2016 in Petition No. 223/TT/2014	175.64	176.34	179.33	183.53	188.59
AFC claimed by the Petitioner in the instant petition	177.22	177.74	180.69	184.93	190.10
AFC approved in the instant order	177.23	177.73	180.68	184.93	190.09

### **Truing up of Annual Fixed Charges for the 2014-19 Tariff Period**

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

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	37.48	15.40	15.40	15.40	15.40
Interest on Loan	14.35	18.10	16.42	14.74	13.06
Return on equity	19.12	19.21	19.20	19.20	19.25
Interest on Working Capital	7.30	7.07	7.22	7.38	7.55
O & M Expenses	102.51	105.91	109.43	113.06	116.81
<b>Total</b>	<b>180.76</b>	<b>165.69</b>	<b>167.67</b>	<b>169.78</b>	<b>172.07</b>

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

Particular	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
O & M expenses	8.54	8.83	9.12	9.42	9.73
Maintenance Spares	15.38	15.89	16.41	16.96	17.52
Receivables	30.13	27.62	27.95	28.30	28.68
<b>Total</b>	<b>54.05</b>	<b>52.34</b>	<b>53.48</b>	<b>54.68</b>	<b>55.93</b>
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
<b>Interest</b>	<b>7.30</b>	<b>7.07</b>	<b>7.22</b>	<b>7.38</b>	<b>7.55</b>

### **Capital Cost as on 1.4.2014**

31. The capital cost of the instant asset has been calculated in accordance with Regulations 9(3) and 9(6) of the 2014 Tariff Regulations. The Commission vide





order dated 8.1.2016 in Petition No.223/TT/2014 had approved the transmission tariff for the transmission asset for the 2014-19 tariff period based on admitted capital cost of ₹709.82 lakh as on 31.3.2014. The Petitioner has not claimed any ACE during the 2014-19 tariff period. Therefore, the admitted capital cost of ₹709.82 lakh as on 31.3.2014 has been considered for working out the trued-up tariff for the 2014-19 tariff period.

### **Debt-Equity Ratio**

32. 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 86.27:13.73 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 transmission asset. The details of the debt-equity ratio of the transmission asset as on 1.4.2014 and 31.3.2019 is as follows:

<b>Particulars</b>	<b>Capital cost as on 1.4.2014 (₹ in lakh)</b>	<b>(in %)</b>	<b>Total cost as on 31.3.2019 (₹ in lakh)</b>	<b>(in %)</b>
Debt	612.39	86.27	612.39	86.27
Equity	97.43	13.73	97.43	13.73
<b>Total</b>	<b>709.82</b>	<b>100.00</b>	<b>709.82</b>	<b>100.00</b>

### **Depreciation**

33. The Petitioner has claimed depreciation considering capital expenditure of ₹709.82 lakh as on 1.4.2014 for the transmission asset. The Petitioner has not claimed any depreciation towards "IT Equipment" in the instant petition.



34. The depreciation has been worked out as per the methodology provided in Regulation 27 of the 2014 Tariff Regulations. The Gross Block during the 2014-19 tariff period has been depreciated at weighted average rate of depreciation (WAROD) and working of WAROD is given at Annexure-I to this order. The transmission asset having already completed 12 years of life as on 31.3.2015, the remaining depreciable value of ₹200.20 lakh has been spread across the balance useful life of 13 years in accordance with Regulation 27(5) of the 2014 Tariff Regulations. WAROD has been worked out after taking into account the depreciation rate as specified in the 2014 Tariff Regulations and the trued-up depreciation allowed for the 2014-19 tariff period is as follows:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	709.82	709.82	709.82	709.82	709.82
Additional Capitalisation	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	709.82	709.82	709.82	709.82	709.82
Average Gross Block	709.82	709.82	709.82	709.82	709.82
Weighted average Rate of Depreciation (WAROD) (in %)	5.28	2.17	2.17	2.17	2.17
Balance useful life at the beginning of the year (Year)	14	13	12	11	10
Aggregate Depreciable Value	638.84	638.84	638.84	638.84	638.84
<b>Depreciation during the year</b>	<b>37.48</b>	<b>15.40</b>	<b>15.40</b>	<b>15.40</b>	<b>15.40</b>
Depreciation at the end of the year	438.64	454.04	469.44	484.84	500.24
Remaining Aggregate Depreciable Value at the end of the year	200.20	184.80	169.40	154.00	138.60

35. Accordingly, the depreciation allowed vide order dated 8.1.2016 in Petition No. 223/TT/2014, depreciation claimed in the instant petition and trued-up depreciation approved in respect of the transmission asset are as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 8.1.2016 in Petition No. 223/TT/2014	37.48	13.68	13.68	13.68	13.68



As claimed by the Petitioner in the instant petition	37.48	15.40	15.40	15.40	15.40
Approved after true-up in this order	37.48	15.40	15.40	15.40	15.40

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

36. The Petitioner has claimed IoL based on actual interest rates for each year during the 2014-19 tariff period. The Petitioner has submitted that the weighted average rate of IoL has been considered on the basis of the rates prevailing as on 1.4.2014 and has prayed to consider floating rate of interest applicable during the 2014-19 period, if any, during the truing up of tariff.

37. We have considered the submissions of the Petitioner and accordingly calculated the IoL based on actual interest rate, in accordance with Regulation 26 of the 2014 Tariff Regulations. IoL has been worked out as detailed below:

(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.

38. The details of IoL calculated are as follows:

Particular	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	612.39	612.39	612.39	612.39	612.39
Cumulative Repayments up to Previous Year	401.16	438.64	454.04	469.44	484.84
Net Loan-Opening	211.23	173.75	158.35	142.95	127.55
Additions	0.00	0.00	0.00	0.00	0.00
Repayment during the year	37.48	15.40	15.40	15.40	15.40
Net Loan-Closing	173.75	158.35	142.95	127.55	112.15
Average Loan	192.49	166.05	150.65	135.25	119.85
Weighted Average Rate of Interest on Loan (in %)	7.452	10.90	10.901	10.901	10.901
<b>Interest on Loan</b>	<b>14.35</b>	<b>18.10</b>	<b>16.42</b>	<b>14.74</b>	<b>13.07</b>



39. Accordingly, IoL allowed vide order dated 8.1.2016 in Petition No. 223/TT/2014, IoL claimed by the Petitioner in the instant petition and approved after true-up in respect of the transmission asset is as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 8.1.2016 in Petition No. 223/TT/2014	12.11	15.76	14.27	12.78	11.29
As claimed by the Petitioner in the instant petition	14.35	18.10	16.42	14.74	13.06
Approved after true-up in this order	14.35	18.10	16.42	14.74	13.07

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

40. The Petitioner has claimed RoE for the transmission asset in terms of Regulation 24 and Regulation 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

41. BSPHCL in its reply has submitted that the Petitioner in the instant Petition has not specified whether the tax and interest paid by the Petitioner is after adjustment of any refund of tax including interest received and is also exclusive of penalty on account of late payment of tax or short deposit of tax. BSPHCL has further submitted that truing up of grossed-up RoE has to be done on the basis of actual taxes paid every year during the 2014-19 period and that the 2014 Tariff Regulations do not allow for claiming any differential tariff arising due to truing up of grossed up RoE directly from the beneficiaries.



42. In response, the Petitioner has submitted that in various orders such as order dated 18.4.2020 in Petition No. 247/TT/2019, order dated 27.4.2020 in Petition No. 274/TT/2019, order dated 23.4.2020 in Petition No. 245/TT/2019 and in order dated 16.4.2020 in Petition No. 307/TT/2019, the Commission has considered the effective tax rate based on notified MAT rates for grossing up of rate of RoE. It has been further submitted that the trued-up RoE based on the effective tax rate as calculated in the aforementioned petitions are based upon Income Tax Assessment/ re-assessment for 2014-15, 2015-16 and 2016-17. Further, the Income Tax Assessment for 2017-18 and 2018-19 has not been completed yet.

43. We have considered the submissions of the Petitioner and BSPHCL. As regards BSPHCL's contention that the grossed-up rate of RoE for the period 2017-18 to 2018-19 is not based on the MAT rates approved by the Income Tax Authorities, it is observed that the effective rate of tax considered by the Petitioner for 2014-15, 2015-16 and 2016-17 is based on Assessment Orders issued by Income Tax Authorities and that the effective rate of tax considered for 2017-18 and 2018-19 are based on the Income Tax returns filed for the purpose of grossing up the RoE rate of respective years. In view of the clarification given by the Petitioner, we are of the view that there is no merit in the contention of BSPHCL.

44. 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 as follows:

<b>Year</b>	<b>Notified MAT rates (in %) (inclusive of surcharge &amp; cess)</b>	<b>Effective tax (in %)</b>
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



45. The same MAT rates as 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 trueing up of the tariff of the 2014-19 tariff period in terms of the provisions of the 2014 Tariff Regulations, as under:

Year	Notified MAT rates (in %) (inclusive of surcharge & cess)	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

46. Accordingly, RoE allowed for the transmission asset is as follows:

Particular	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	97.43	97.43	97.43	97.43	97.43
Addition due to ACE	0.00	0.00	0.00	0.00	0.00
Closing Equity	97.43	97.43	97.43	97.43	97.43
Average Equity	97.43	97.43	97.43	97.43	97.43
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
Tax Rate applicable (in %)	20.961	21.342	21.342	21.342	21.549
Applicable ROE Rate (in %)	19.610	19.705	19.705	19.705	19.758
<b>Return on Equity for the year</b>	<b>19.11</b>	<b>19.20</b>	<b>19.20</b>	<b>19.20</b>	<b>19.25</b>

47. Accordingly, RoE allowed vide order dated 8.1.2016 in Petition No. 223/TT/2014, RoE claimed in the instant petition and trueed-up RoE in respect of the transmission asset is as follows:

Particular	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 8.1.2016 in Petition No. 223/TT/2014	19.11	19.11	19.11	19.11	19.11
As claimed by the Petitioner in the instant petition	19.12	19.21	19.20	19.20	19.25
Approved after true-up in this order	19.11	19.20	19.20	19.20	19.25



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

48. The details of the O&M Expenses claimed by the Petitioner for the transmission asset and allowed under Regulation 29(4)(a) of the 2014 Tariff Regulations for the purpose of tariff are as follows:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Substation Bays</b>					
400kV Sub-station	1	1	1	1	1
220kV Sub-station	1	1	1	1	1
<b>Norms (₹ lakh/km)</b>					
400kV Sub-station	60.300	62.300	64.370	66.510	68.710
220kV Sub-station	42.210	43.610	45.060	46.550	48.100
<b>O&amp;M Substation</b>	<b>102.51</b>	<b>105.91</b>	<b>109.43</b>	<b>113.06</b>	<b>116.81</b>
<b>Total O&amp;M (₹ in lakh)</b>	<b>102.51</b>	<b>105.91</b>	<b>109.43</b>	<b>113.06</b>	<b>116.81</b>

49. Accordingly, the O&M Expenses allowed vide order dated 8.1.2016 in Petition No. 223/TT/2014, O&M Expenses claimed in the instant petition and trued-up O&M Expenses in respect of the transmission asset are as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 8.1.2016 in Petition No. 223/TT/2014	102.51	105.91	109.43	113.06	116.81
As claimed by the Petitioner in the instant petition	102.51	105.91	109.43	113.06	116.81
Approved in this order	102.51	105.91	109.43	113.06	116.81

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

50. The Petitioner has claimed IWC in terms of Regulation 28 of the 2014 Tariff Regulations as follows:

#### **(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. In the tariff being allowed,



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 accordingly been worked out.

**(iii) O & M expenses**

Operation and maintenance 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 Regulation, SBI Base rate 10.00% as on 1.4.2014 plus 350 Bps i.e. 13.50% has been considered for the asset, as the rate of interest on working capital.

51. The trued-up IWC allowed for the transmission asset for the 2014-19 period is as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O & M Expenses (O&M expenses for 1 month)	8.54	8.83	9.12	9.42	9.73
Maintenance Spares (15% of O&M expenses)	15.38	15.89	16.41	16.96	17.52
Receivables (Equivalent to 2 months of annual fixed cost / annual transmission charges)	30.12	27.61	27.95	28.30	28.687
<b>Total</b>	<b>54.04</b>	<b>52.32</b>	<b>53.48</b>	<b>54.68</b>	<b>55.941</b>
Rate of Interest on working capital (in %)	13.50	13.50	13.50	13.50	13.50
<b>Interest of working Capital</b>	<b>7.30</b>	<b>7.06</b>	<b>7.22</b>	<b>7.38</b>	<b>7.55</b>

52. Accordingly, IWC allowed vide order dated 8.1.2016 in Petition No. 223/TT/2014, IWC claimed in the instant petition and trued-up IWC in respect of the transmission asset is as follows:





(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 8.1.2016 in Petition No. 223/TT/2014	7.24	6.97	7.13	7.29	7.47
As claimed by the Petitioner in the instant petition	7.30	7.07	7.22	7.38	7.55
Approved after true-up in this order	7.29	7.06	7.22	7.38	7.55

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

53. Accordingly, the annual fixed charges after truing up for the 2014-19 tariff period are as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	37.48	15.40	15.40	15.40	15.40
Interest on Loan	14.35	18.10	16.42	14.74	13.07
Return on Equity	19.11	19.20	19.20	19.20	19.25
Interest on Working Capital	7.30	7.06	7.22	7.38	7.55
O&M Expenses	102.51	105.91	109.43	113.06	116.81
<b>Total</b>	<b>180.74</b>	<b>165.67</b>	<b>167.67</b>	<b>169.78</b>	<b>172.08</b>

54. Accordingly, the details of the Annual Transmission Charges approved vide order dated 8.1.2016 in Petition No. 223/TT/2014, the Annual Transmission Charges claimed in the instant petition and trued-up Annual Transmission Charges approved in respect of the transmission asset are as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 8.1.2016 in Petition No. 223/TT/2014	178.45	161.43	163.62	165.92	168.36
As claimed by the Petitioner in the instant petition	180.76	165.69	167.67	169.78	172.07
Approved after true-up in this order	180.74	165.67	167.67	169.78	172.08

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

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



(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	15.40	15.40	15.40	15.40	15.40
Interest on Loan	11.39	9.71	8.03	6.35	4.67
Return on equity	19.25	19.25	19.25	19.25	19.25
Interest on Working Capital	7.99	8.23	8.47	8.73	8.97
O & M Expenses	167.43	173.45	179.53	185.99	192.22
<b>Total</b>	<b>221.46</b>	<b>226.04</b>	<b>230.68</b>	<b>235.72</b>	<b>240.51</b>

56. The details of IWC claimed by the Petitioner 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
O & M expenses	13.95	14.45	14.96	15.50	16.02
Maintenance Spares	25.11	26.02	26.93	27.90	28.83
Receivables	27.23	27.87	28.44	29.06	29.57
<b>Total</b>	<b>66.29</b>	<b>68.34</b>	<b>70.33</b>	<b>72.46</b>	<b>74.42</b>
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
<b>Interest</b>	<b>7.99</b>	<b>8.23</b>	<b>8.47</b>	<b>8.73</b>	<b>8.97</b>

### Capital Cost

57. 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 asset before the date of commercial operation;*
- (i) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*
- (j) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal up to the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;*
- (k) Capital expenditure on account of biomass handling equipment and facilities, for co-firing;*
- (l) Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;*
- (m) Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project;*
- (n) Expenditure on account of change in law and force majeure events; and*
- (o) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.*

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

- (a) Capital cost admitted by the Commission prior to 1.4.2019 duly 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 asset forming part of the project, but not in use, as declared in the tariff petition;*



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

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

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

*(c) In case of hydro generating stations, any expenditure incurred or committed to be incurred by a project developer for getting the project site allotted by the State Government by following a transparent process;*

*(d) Proportionate cost of land of the existing project which is being used for generating power from generating station based on renewable energy; and*

*(e) Any grant received from the Central or State Government or any statutory body or authority for the execution of the project which does not carry any liability of repayment. “*

58. The capital cost of ₹709.82 lakh has been considered by the Commission for the transmission asset as on 31.3.2019. The Petitioner has not claimed any ACE for the 2019-24 tariff period for the transmission asset in the instant petition. Therefore, the capital cost of ₹709.82 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 the 2019-24 tariff period in accordance with Regulation 19 of the 2019 Tariff Regulations.

### **Debt-Equity Ratio**

59. 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.*



(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.”

60. 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 2019-24 tariff period are as follows:

Particulars	Capital cost as on 1.4.2019 (₹ in lakh)	(in %)	Total cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	612.39	86.27	612.39	86.27
Equity	97.43	13.73	97.43	13.73
<b>Total</b>	<b>709.82</b>	<b>100.00</b>	<b>709.82</b>	<b>100.00</b>

### Depreciation

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



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

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

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

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

*Provided that the salvage value for IT equipment and software shall be considered as NIL and 100% value of the asset 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 asset 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 asset 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 asset.*



(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 asset.

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

62. We have considered the submissions of the Petitioner. WAROD has been worked out at Annexure-II after taking into account the depreciation rates 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 for the transmission asset is as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	709.82	709.82	709.82	709.82	709.82
Addition during 2019-24 due to projected ACE	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	709.82	709.82	709.82	709.82	709.82
Average Gross Block	709.82	709.82	709.82	709.82	709.82
Balance useful life at the beginning of the year (Year)	9	8	7	6	5
Depreciable Value	638.84	638.84	638.84	638.84	638.84
Rate of Depreciation (in %)	2.17	2.17	2.17	2.17	2.17
<b>Depreciation during the year</b>	<b>15.40</b>	<b>15.40</b>	<b>15.40</b>	<b>15.40</b>	<b>15.40</b>
Cumulative Depreciation	515.64	531.04	546.44	561.84	577.24
Remaining Aggregate Depreciable Value	123.20	107.80	92.40	77.00	61.60

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

63. Regulation 32 of the 2019 Tariff Regulations provides as follows:



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

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

*(3) The repayment for each of the year of the tariff period 2019-24 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of de-capitalization of asset, 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”.*

64. BSPHCL has submitted that there is no provision in the 2019 Tariff Regulations which supports the claim of the Petitioner in respect of floating rate of interest to be directly adjusted/ claimed with the beneficiaries.

65. In response, the Petitioner has stated that for the 2019-24 tariff period, the IoL has been calculated on the basis of interest rates prevailing as on 1.4.2019.





66. We have considered the submissions of the Petitioner and BSPHCL. 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. The floating rate of interest, if any, shall be considered at the time of true up. Accordingly, IoL has been worked out in accordance with Regulation 32 of the 2019 Tariff Regulations as follows:

(₹ in lakh)					
Particular	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	612.39	612.39	612.39	612.39	612.39
Cumulative Repayments up to Previous Year	500.24	515.64	531.04	546.44	561.84
Net Loan-Opening	112.15	96.75	81.35	65.95	50.55
Additions	0.00	0.00	0.00	0.00	0.00
Repayment during the year	15.40	15.40	15.40	15.40	15.40
Net Loan-Closing	96.75	81.35	65.95	50.55	35.15
Average Loan	104.45	89.05	73.65	58.25	42.85
Weighted Average Rate of Interest on Loan (in %)	10.901	10.901	10.901	10.901	10.901
Interest on Loan	<b>11.39</b>	<b>9.71</b>	<b>8.03</b>	<b>6.35</b>	<b>4.67</b>

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

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

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

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

*Provided that return on equity in respect of additional capitalization after cut-off date beyond the original scope 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;

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.

(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. 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.”

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

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	97.43	97.43	97.43	97.43	97.43
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	97.43	97.43	97.43	97.43	97.43
Average Equity	97.43	97.43	97.43	97.43	97.43
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>18.30</b>	<b>18.30</b>	<b>18.30</b>	<b>18.30</b>	<b>18.30</b>

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

69. Regulation 35(3)(a) 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
<i>Norms for sub-station Bays (₹ Lakh per bay)</i>					
765 kV	45.01	46.60	48.23	49.93	51.68
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84
132 kV and below	16.08	16.64	17.23	17.83	18.46
<i>Norms for Transformers (₹ Lakh per MVA)</i>					



765 kV	0.491	0.508	0.526	0.545	0.564
400 kV	0.358	0.371	0.384	0.398	0.411
220 kV	0.245	0.254	0.263	0.272	0.282
132 kV and below	0.245	0.254	0.263	0.272	0.282
<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-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
<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
±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)	1,696	1,756	1,817	1,881	1,947
±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)	2,563	2,653	2,746	2,842	2,942

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

*Provided further that:*

- i. the operation and maintenance expenses for new HVDC bi-pole schemes commissioned after 1.4.2019 for a particular year shall be allowed pro-rata on the basis of normative rate of operation and maintenance expenses of similar HVDC bi-pole scheme for the corresponding year of the tariff period;*
- ii. the O&M expenses norms for HVDC bi-pole line shall be considered as Double Circuit quad AC line;*
- iii. the O&M expenses of ±500 kV Mundra-Mohindergarh HVDC bipole scheme (2000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±500 kV Talchar-Kolar HVDC bi-pole scheme*



(2000 MW);

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

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

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Sub-station Bays</b>					
400kV Sub-station	1	1	1	1	1
220kV Sub-station	1	1	1	1	1
400kV Sub-station ICT(MVA)	315	315	315	315	315
<b>Norms (₹ lakh/km)</b>					
400kV Sub-station	32.15	33.28	34.45	35.66	36.91
220kV Sub-station	22.51	23.30	24.12	24.96	25.84
400kV Sub-station ICT	0.358	0.371	0.384	0.398	0.411
<b>O&amp;M Substation</b>	<b>167.43</b>	<b>173.45</b>	<b>179.53</b>	<b>185.99</b>	<b>192.22</b>
<b>Total O&amp;M (₹ in lakh)</b>	<b>167.43</b>	<b>173.45</b>	<b>179.53</b>	<b>185.99</b>	<b>192.22</b>



71. The O&M Expenses claimed by the Petitioner are in accordance with Regulation 35(3) of the 2019 Tariff Regulations. Hence, they are allowed as claimed.

**Interest on Working Capital (“IWC”)**

72. Regulations 34(1)(c), 34(3), 34(4) and 3(7) of the 2019 Tariff Regulations specify 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;”*

73. 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 transmission asset is as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O & M Expenses (O&M expenses for 1 month)	13.95	14.45	14.96	15.50	16.02
Maintenance Spares (15% of O&M expenses)	25.11	26.02	26.93	27.90	28.83
Receivables (Equivalent to 45 days of annual fixed cost/ annual transmission charges)	27.11	27.68	28.25	28.87	29.38
<b>Total</b>	<b>66.18</b>	<b>68.15</b>	<b>70.14</b>	<b>72.27</b>	<b>74.23</b>
Rate of Interest (in %)	12.05	11.25	11.25	11.25	11.25
<b>Interest of working capital</b>	<b>7.97</b>	<b>7.67</b>	<b>7.89</b>	<b>8.13</b>	<b>8.35</b>

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

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

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	15.40	15.40	15.40	15.40	15.40
Interest on Loan	11.39	9.71	8.03	6.35	4.67
Return on Equity	18.30	18.30	18.30	18.30	18.30
Int. on Working Capital	7.97	7.67	7.89	8.13	8.35
Op. and Maintenance	167.43	173.45	179.53	185.99	192.22
<b>Total</b>	<b>220.49</b>	<b>224.52</b>	<b>229.15</b>	<b>234.17</b>	<b>238.94</b>

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

75. The Petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses.

76. BSPHCL submitted that filing fee is at the discretion of the Commission and need not be allowed necessarily.



77. In response, the Petitioner has submitted that the Commission in its order dated 28.3.2016 in Petition No. 137/TT/2015 for determination of tariff for 2014-19 period allowed the recovery of petition filing fee and publication of notices from the beneficiaries on pro rata basis and the Petitioner is claiming the same in terms of Regulation 70(1) of the 2019 Tariff Regulations.

78. We have considered the submissions of the Petitioner and BSPHCL. 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**

79. The Petitioner has claimed to bill and recover License fee and RLDC fees and charges, separately from the Respondents in terms of Regulation 70(4) and Regulations 70(3) of the 2019 Tariff Regulations.

80. We have considered the submissions of the Petitioner. 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. 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.

#### **Security Expenses**

81. The Petitioner has submitted that security expenses for the instant asset 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 yearly basis.

82. 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**

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



84. BSPHCL submitted that in terms of Regulation 56 of the 2019 Tariff Regulations, statutory charges can be recovered only by a generating company and not a transmission licensee.

85. PGCIL in its response has submitted that Under CGST Act, 2017 implemented w.e.f. 1.7.2017, the Govt. of India has exempted the charges of transmission of electricity vide Notification No. 12/2017 – Central Tax (Rate) dated 28.6.2017 at serial no. 25 under the heading 9969 “Transmission or distribution of electricity by an electric transmission or distribution utility” by giving applicable GST rate as NIL. Hence, the transmission charges as indicated in the instant petition are exclusive of GST. Further, if GST is levied at any rate and at any point of time in future on transmission of electricity, the same shall be borne and additionally paid by the Respondent(s) to the Petitioner and the same shall be charged and billed separately by the Petitioner. Further additional taxes, if any, paid by the Petitioner on account of demand from Government/ Statutory authorities, may also be allowed to be recovered from the beneficiaries.

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

**Capital Spares**

87. 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**

88. During the tariff periods 2001-04, 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 is governed by Central Electricity Regulatory Commission (Sharing of Transmission Charges and Losses) Regulations, 2010 and with effect from 1.11.2020, sharing is governed by Central Electricity Regulatory Commission (Sharing of Transmission Charges and Losses) Regulations, 2020 (2020 Sharing Regulations). Accordingly, the liabilities of the DICs for arrears of transmission charges determined through this order shall be computed DIC-wise in accordance with the provisions of respective Tariff Regulations and Sharing Regulations and shall be recovered from the concerned DICs through Bill 2 under Regulation 15(2)(b) of the 2020 Sharing Regulations.

89. To summarise:

(a) The revised transmission charges allowed for the transmission asset for 2001-04 tariff period are as follows:

<b>Particulars</b>	<b>(₹ in lakh)</b>	
	<b>2002-03</b>	<b>2003-04</b>
Revised AFC	66.18	135.19

(b) The revised annual transmission charges allowed for the transmission asset for the 2004-09 tariff period are as follows:

<b>Particulars</b>	<b>(₹ in lakh)</b>				
	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Revised AFC	146.11	148.04	156.56	158.49	160.79

(c) The consequential revision of annual transmission charges allowed for the transmission asset of the 2009-14 tariff period are as follows:

<b>Particulars</b>	<b>(₹ in lakh)</b>				
	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
Revised AFC	177.23	177.73	180.68	184.93	190.09



(d) 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
AFC	180.74	165.67	167.67	169.78	172.08

(e) The Annual Fixed Charges allowed for the transmission asset 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
AFC	220.49	224.52	229.15	234.17	238.94

90. Annexure-I and Annexure-II to this order shall form part of the order.

91. This order disposes of Petition No. 263/TT/2019 in terms of the above discussion and findings.

sd/-  
**(Pravas Kumar Singh)**  
Member

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

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

sd/-  
**(P. K. Pujari)**  
Chairperson



**Annexure-I**

Asset	Particular	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations (₹ in lakh)				
					2014-15	2015-16	2016-17	2017-18	2018-19
Asset	Land	0.00	0.00	0.00					
	Building	0.00	0.00	3.34					
	Transmission Line	709.82	709.82	5.28	37.48				
	Sub Station	0.00	0.00	5.28					
	PLCC	0.00	0.00	6.33					
	Leasehold Land	0.00	0.00	3.34					
	IT Equipment and software	0.00	0.00	15.00					
	<b>TOTAL</b>	<b>709.82</b>	<b>709.82</b>		<b>37.48</b>	<b>15.40</b>	<b>15.40</b>	<b>15.40</b>	<b>15.40</b>
				<b>Average Gross Block (₹ in lakh)</b>	<b>709.82</b>	<b>709.82</b>	<b>709.82</b>	<b>709.82</b>	<b>709.82</b>
				<b>Weighted Average Rate of Depreciation (in %)</b>	<b>5.28</b>	<b>2.17</b>	<b>2.17</b>	<b>2.17</b>	<b>2.17</b>



**Annexure-II**

Asset	Particular	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations (₹ in lakh)				
					2019-20	2020-21	2021-22	2022-23	2023-24
Asset	Land	0.00	0.00	0.00					
	Building	0.00	0.00	3.34					
	Transmission Line	709.82	709.82	5.28					
	Sub Station	0.00	0.00	5.28					
	PLCC	0.00	0.00	6.33					
	Leasehold Land	0.00	0.00	3.34					
	IT Equipment and software	0.00	0.00	15.00					
	<b>TOTAL</b>	<b>709.82</b>	<b>709.82</b>		<b>15.40</b>	<b>15.40</b>	<b>15.40</b>	<b>15.40</b>	<b>15.40</b>
			<b>Average Gross Block (₹ in lakh)</b>		<b>709.82</b>	<b>709.82</b>	<b>709.82</b>	<b>709.82</b>	<b>709.82</b>
			<b>Weighted Average Rate of Depreciation (in %)</b>		<b>2.17</b>	<b>2.17</b>	<b>2.17</b>	<b>2.17</b>	<b>2.17</b>

