

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 683/TT/2020**

**Coram:**

**Shri I.S. Jha, Member  
Shri Arun Goyal, Member  
Shri Pravas Kumar Singh, Member**

**Date of order: 12.09.2021**

**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 2004-09 and 2009-14 periods and truing up of transmission tariff of 2014-19 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of 2019-24 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for **Asset-I:** Moga-Hissar D/C transmission line alongwith 220 kV Hissar-Hissar (BBMB) D/C line and 400 kV S/C Hissar-Bhiwani Ckt.-I transmission line alongwith associated bays at Hissar and Bhiwani Sub-stations and **Asset-II:** One bay at Bhiwani Sub-station for termination of one Ckt. of 400 kV Bawana-Bhiwani transmission line and 400 kV Bawana Bhiwani transmission line and 400 kV S/C of Hissar-Bawana transmission line upto Bhiwani alongwith associated bays at Hissar under Moga-Hissar-Bhiwani Transmission System in Northern Region.

**And in the Matter of:**

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

**.....Petitioner**

**Vs.**

1. Rajasthan Rajya Vidyut Prasaran Nigam Limited,  
Vidyut Bhawan, Vidyut Marg, Jaipur – 302 005.
2. Ajmer Vidyut Vitran Nigam Limited,  
132 kV, GSS RVPNL Sub-station Building,  
Caligiri Road, Malviya Nagar, Jaipur – 302 017 (Rajasthan).
3. Jaipur Vidyut Vitran Nigam Limited,  
132 kV, GSS RVPNL Sub-station Building,  
Caligiri Road, Malviya Nagar, Jaipur – 302 017 (Rajasthan).



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4. Jodhpur Vidyut Vitran Nigam Limited,  
132 kV, GSS RVPNL Sub - station Building,  
Caligiri Road, Malviya Nagar, Jaipur – 302 017 (Rajasthan).
5. Himachal Pradesh State Electricity Board,  
Vidyut Bhawan, Kumar House Complex Building II,  
Shimla – 171 004.
6. Punjab State Electricity Board,  
The Mall, Patiala – 147 001.
7. Haryana Power Purchase Centre,  
Shakti Bhawan, Sector-6,  
Panchkula – 134 109 (Haryana).
8. Power Development Department,  
Govt. of Jammu & Kashmir,  
Mini Secretariat, Jammu.
9. Uttar Pradesh Power Corporation Limited,  
(Formerly Uttar Pradesh State Electricity Board),  
Shakti Bhawan, 14, Ashok Marg,  
Lucknow – 226 001.
10. Delhi Transco Limited,  
Shakti Sadan, Kotla Road,  
New Delhi – 110 002.
11. BSES Yamuna Power Limited,  
BSES Bhawan, Nehru Place,  
New Delhi.
12. BSES Rajdhani Power Limited,  
BSES Bhawan, Nehru Place,  
New Delhi.
13. Tata Power Delhi Distribution Limited,  
33 kV Sub-station, Building,  
Hudson Lane, Kingsway Camp,  
North Delhi – 110 009.
14. Chandigarh Administration,  
Sector - 9, Chandigarh.



15. Uttarakhand Power Corporation Limited,  
Urja Bhawan, Kanwali Road,  
Dehradun.

16. North Central Railway,  
Allahabad.

17. New Delhi Municipal Council,  
Palika Kendra, Sansad Marg,  
New Delhi – 110 002.

...Respondent(s)

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

**For Respondents** : None

### **ORDER**

The instant petition has been filed by the Petitioner, Power Grid Corporation of India Limited, a deemed transmission licensee, for revision of transmission tariff of 2004-09 and 2009-14 periods; truing up of transmission tariff for the period from 1.4.2014 to 31.3.2019 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”); and for determination of tariff for the period from 1.4.2019 to 31.3.2024 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) in respect of Combined Asset (combined during 2014-19 period) consisting of the following transmission assets under Moga-Hissar-Bhiwani Transmission System in Northern Region (hereinafter referred to as ‘the Transmission System’):



**Asset-I:** Moga-Hissar D/C transmission line alongwith 220 kV Hissar-Hissar (BBMB) D/C line and 400 kV S/C Hissar- Bhiwani Ckt.-I transmission line alongwith associated bays at Hissar and Bhiwani Sub-stations; and

**Asset-II:** One bay at Bhiwani Sub-station for termination of one Ckt. Of 400 kV Bawana-Bhiwani transmission line and 400 kV Bawana Bhiwani transmission line and 400 kV S/C of Hissar-Bawana transmission line upto Bhiwani alongwith associated bays at Hissar.

2. The Petitioner has made the following prayers in the instant 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 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 fresh add- cap projected during 2019-24 and unrecovered depreciation as part of the Tariff of 2019-24.*

*4) 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 regulations 2014 and tariff regulation’19 as per para 9.0 & 10 above for respective block.*

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

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

*6) Allow the petitioner to 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 withdrawn from negative list at any time 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 follows:

(a) The Central Government in Ministry of Energy, Department of Power accorded its approval for 400 kV Moga-Bhiwani Transmission System in Northern region under letter dated 20.9.1988 at an estimated cost of ₹9519 lakh including IDC of ₹748 lakh. However, subsequently there were changes made in the scope and structure of the Transmission System. Accordingly, the revised cost estimate for the Transmission System was approved by Ministry of Power, vide letter dated 15.5.2001 at an estimated cost of ₹15090 lakh (including IDC of ₹1975 lakh) for 400 kV Moga-Hissar-Bhiwani Transmission System with revised scope of work as follows:

#### **i. Transmission Lines**

- i. 400 kV D/C Moga-Hissar Transmission Line along with associated bay equipment bay Moga and Hissar sub-stations,
- ii. 400 kV S/C Hissar-Bhiwani Line,
- iii. 400 kV S/C Hissar-Bhiwani-Bawana line, and
- iv. 220 kV D/C Hissar (Power grid) – Hissar (BBMB) line.



### Sub-stations

- i. 400/220 kV Sub-station at Hissar (2x315 MVA Auto-transformer), and
- ii. Extension of Sub-stations at Moga and Bhiwani (BBMB).

(b) The entire scope of work of the Transmission System is complete and is covered in the instant petition. The details of commercial operation of the transmission assets covered in the instant petition are as follows:

Asset No.	Asset name	COD
Asset-I	Moga-Hissar <i>D/C</i> transmission line alongwith 220 kV Hissar-Hissar (BBMB) <i>D/C</i> line and 400 kV <i>S/C</i> Hissar- Bhiwani Ckt.-I transmission line alongwith associated bays at Hissar and Bhiwani Sub-stations	1.7.1995
Asset-II	One bay at Bhiwani Sub-station for termination of one Ckt. of 400 kV Bawana-Bhiwani <b>transmission</b> line and 400 kV Bawana Bhiwani transmission line and 400 kV <i>S/C</i> of Hissar-Bawana <b>transmission</b> line upto Bhiwani alongwith associated bays at Hissar	1.2.1998

(c) The transmission tariff in respect of the transmission assets for the period from 1.4.2001 to 31.3.2004 was approved vide order dated 25.3.2004 in Petition No. 44/2002.

(d) The transmission tariff for the period from 1.4.2004 to 31.3.2009 in respect of transmission assets was approved vide order dated 27.3.2006 in Petition No. 106/2004. Transmission tariff in respect of Asset-I was revised for the period from 1.4.2004 to 31.3.2009 vide order dated 22.1.2008 in Petition No. 106/2004.

(e) The transmission tariff for transmission assets was approved for the period from 1.4.2009 to 31.3.2014 vide order dated 1.12.2010 in Petition No. 106/2020.

(f) The tariff for 2009-14 period was trued up and tariff for 2014-19 period was determined vide order dated 7.6.2016 in Petition No. 536/TT/2014.



(g) The Petitioner has sought revision of transmission tariff allowed for 2004-09 tariff period on account of change in Interest on Loan (IoL) and Interest on Working Capital (IWC) to the extent of increase in IoL and Maintenance Spares in terms of the judgments of the APTEL 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. The Petitioner has sought consequential revision of transmission tariff allowed for 2009-14 tariff period, truing up of tariff of 2014-19 tariff period, and determination of transmission tariff for 2019-24 tariff period for the transmission assets under the Transmission System.

(h) APTEL in judgment 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:

<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 APTEL dated 14.11.2016 in Appeal Nos. 94 and 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. The 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	The Commission's view upheld
3(b)	O&M Expenses: Non-inclusion of incentives and ex-gratia payment to employees	The Commission's view upheld
4	Cost of spares for calculation of working capital	The Commission's view upheld



(i) 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 (nine) issues. The issues considered and the decisions of APTEL are given in the following table:

Sr. No.	Issue	APTEL's decision/direction
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	The Commission to make a fresh computation of outstanding loan.
IV	Admissibility of depreciation up to 90%	The Commission to consider the issue afresh.
V	Cost of Maintenance Spares	The 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. The Commission to act accordingly.
VII	Non-consideration of normative transit loss for coal import	The 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 Nos.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. The Commission shall re-compute the interest accordingly.

(j) 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.





(k) 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 batch matters, the Petitioner sought re-determination of tariff of its transmission assets of 2004-09 periods 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 Civil Appeals by the Hon'ble Supreme Court.

(l) The Hon'ble Supreme Court vide its order dated 10.4.2018, dismissed the said Civil Appeals filed against the APTEL's said judgments. Thus, the judgments of APTEL have attained finality.

(m) Consequent to the Hon'ble Supreme Court's order dated 10.4.2018 in NTPC matters, Petition No. 121/2007 was listed for hearing 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 petition for 2014-19 tariff period.

(n) The instant petition was heard on 9.7.2021 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 Northern Region.

5. The Petitioner has served the petition on the Respondents and notice regarding filing of this petition has been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments or objections have been



received from the general public in response to the aforesaid notices published in the newspapers. None of the Respondents have filed any reply in the matter.

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

6. APTEL while dealing with the issue of computation of IoL, in judgment 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 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 had set aside the Commission's methodology for computation of loan on the actual repayment basis or normative repayment whichever is higher and held that the Commission is required to adopt normative debt repayment methodology for working out IoL liability for the period 1.4.1998 to 31.3.2001. In view of the above, the 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. APTEL vide judgment dated 13.6.2007 in Appeal No. 139/2006 and batch matters held that ACE after COD should also be considered for computation of maintenance spares. In view of the judgment of APTEL, the maintenance spares to be considered for computation of working capital for 2004-09 period are also required to be revised taking into consideration ACE after COD.

**Re: Depreciation**

8. 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.

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

10. The revision of tariff allowed for 2004-09 tariff period necessitates the revision of transmission tariff allowed for 2009-14 tariff period, which is also being done in the present order. The implementation of the directions of 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 was kept pending in case of the Petitioner awaiting 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 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.

11. The hearing in this matter was held on 9.7.2021 through video conference and order was reserved.

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



13. This order is issued considering the submissions made by the Petitioner in the petition vide affidavits dated 17.1.2020 and 12.2.2021.

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

**2004-09 Tariff Period:**

14. The Commission vide order dated 27.3.2006 in Petition No. 106/2004 approved transmission charges for the transmission assets for the period from 1.4.2004 to 31.3.2009. The Commission revised the transmission charges for Asset-I for the period from 1.4.2004 to 31.3.2009 vide order dated 22.1.2008 in Petition No. 106/2004. Accordingly, the transmission charges approved for 2004-09 tariff period vide order dated 27.3.2006 in Petition No. 106/2004 and vide order dated 22.1.2008 in Petition No. 106/2004 are as follows:

(₹ in lakh)

<b>Asset-I</b>					
<b>Particulars</b>	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	354.18	354.18	354.18	354.18	214.16
Return on Equity	878.50	878.50	878.50	878.50	878.50
O&M Expenses	474.71	493.73	513.75	533.80	555.60
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Loan	59.09	37.48	15.88	2.54	0.00
Interest on Working Capital	57.30	58.77	60.35	62.16	61.85
<b>Total</b>	<b>1823.78</b>	<b>1822.66</b>	<b>1822.66</b>	<b>1831.18</b>	<b>1710.11</b>

(₹ in lakh)

<b>Asset-II</b>					
<b>Particulars</b>	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	58.88	58.88	58.88	58.88	58.88
Return on Equity	154.24	154.24	154.24	154.24	154.24
O&M Expenses	63.70	66.26	68.93	71.64	74.55
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Loan	32.68	29.09	25.49	21.90	18.31
Interest on Working Capital	9.06	9.25	9.46	9.67	9.91
<b>Total</b>	<b>318.56</b>	<b>317.72</b>	<b>317.00</b>	<b>316.33</b>	<b>315.89</b>



15. The Petitioner has claimed the following revised transmission charges in respect of the transmission assets for 2004-09 period in this petition:

(₹ in lakh)

<b>Asset-I</b>					
<b>Particulars</b>	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	354.18	354.18	354.18	354.18	214.16
Return on Equity	878.50	878.50	878.50	878.50	878.50
O&M Expenses	474.71	493.73	513.75	533.80	555.60
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Loan	66.98	61.15	55.33	49.51	43.68
Interest on Working Capital	57.44	59.19	61.04	62.97	62.61
<b>Total</b>	<b>1831.81</b>	<b>1846.75</b>	<b>1862.79</b>	<b>1878.96</b>	<b>1754.55</b>

(₹ in lakh)

<b>Asset-II</b>					
<b>Particulars</b>	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	58.88	58.88	58.88	58.88	58.88
Return on Equity	154.24	154.24	154.24	154.24	154.24
O&M Expenses	63.70	66.26	68.93	71.64	74.55
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Loan	33.04	30.17	27.29	24.42	21.55
Interest on Working Capital	9.06	9.27	9.49	9.72	9.97
<b>Total</b>	<b>318.92</b>	<b>318.81</b>	<b>318.83</b>	<b>318.90</b>	<b>319.18</b>

16. We have considered the Petitioner's claim. The tariff is allowed in respect of the transmission assets on the basis of the following:

- a) Admitted capital cost of ₹12550.00 lakh as on 1.4.2004 for Asset-I and ₹2060.45 lakh as on 1.4.2004 for Asset-II;
- b) Weighted Average Rate of Interest on actual loan adopted from order dated 27.3.2006 in Petition No. 106/2004 and order dated 22.1.2008 in Petition No. 106/2004; and
- c) Weighted Average Rate of Depreciation, Rate of Interest for Working Capital and O&M Expenses as per order dated 27.3.2006 in Petition No. 106/2004 and order dated 22.1.2008 in Petition No. 106/2004.



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

(₹ in lakh)

Asset-I					
Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	354.18	354.18	354.18	354.18	214.16
Return on Equity	878.50	878.50	878.50	878.50	878.50
O&M Expenses	474.71	493.73	513.75	533.80	555.60
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Loan	66.98	61.15	55.33	49.51	43.68
Interest on Working Capital	57.44	59.19	61.04	62.97	62.61
<b>Total</b>	<b>1831.81</b>	<b>1846.75</b>	<b>1862.79</b>	<b>1878.96</b>	<b>1754.55</b>

(₹ in lakh)

Asset-II					
Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	58.88	58.88	58.88	58.88	58.88
Return on Equity	154.24	154.24	154.24	154.24	154.24
O&M Expenses	63.70	66.26	68.93	71.64	74.55
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Loan	33.04	30.17	27.29	24.42	21.55
Interest on Working Capital	9.06	9.27	9.49	9.72	9.97
<b>Total</b>	<b>318.93</b>	<b>318.81</b>	<b>318.83</b>	<b>318.90</b>	<b>319.18</b>

18. Annual Fixed Charges (AFC) allowed for 2004-09 tariff period vide order dated 27.3.2006 in Petition No. 106/2004 and order dated 22.1.2008 in Petition No. 106/2004, the revised AFC claimed in the instant petition and AFC allowed in the instant order in respect of the transmission assets are as follows:

(₹ in lakh)

Assets	Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Asset-I	AFC approved vide order dated 27.3.2006 in Petition No. 106/2004 and vide order dated 22.1.2008 in Petition No. 106/2004	1823.78	1822.66	1822.66	1831.18	1710.11
	AFC claimed by the Petitioner in the instant petition	1831.81	1846.75	1862.79	1878.96	1754.55
	AFC allowed in the instant order	1831.81	1846.75	1862.79	1878.96	1754.55
Asset-II	AFC approved vide order dated 27.3.2006 in Petition No.	318.56	317.72	317.00	316.33	315.89



106/2004					
AFC claimed by the Petitioner in the instant petition	318.92	318.81	318.83	318.90	319.18
AFC allowed in the instant order	318.93	318.81	318.83	318.90	319.18

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

19. The Commission vide order dated 1.12.2010 in Petition No. 106/2010 had approved the tariff in respect of the transmission assets for 2009-14 period and vide order dated 7.6.2016 in Petition No. 536/TT/2014 had trued up the tariff allowed for 2009-14 period as follows:

(₹ in lakh)

<b>Asset-I</b>					
<b>Particulars</b>	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
Depreciation	217.44	232.81	239.83	239.83	239.83
Return on Equity	1189.01	1250.41	1255.36	1259.08	1274.22
O&M Expenses	765.67	809.50	855.87	904.78	956.43
Interest on Loan	7.14	7.67	0.00	0.00	0.00
Interest on Working Capital	67.76	71.57	73.97	76.50	79.40
<b>Total</b>	<b>2247.03</b>	<b>2371.96</b>	<b>2425.03</b>	<b>2480.18</b>	<b>2549.87</b>

(₹ in lakh)

<b>Asset-II</b>					
<b>Particulars</b>	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
Depreciation	99.07	52.57	52.57	52.57	52.57
Return on Equity	205.74	213.27	213.48	213.48	216.05
O&M Expenses	116.57	123.23	130.29	137.75	145.62
Interest on Loan	13.49	8.87	5.66	2.46	0.43
Interest on Working Capital	12.47	11.89	12.18	12.49	12.89
<b>Total</b>	<b>447.34</b>	<b>409.83</b>	<b>414.19</b>	<b>418.74</b>	<b>427.56</b>

20. The Petitioner has claimed the following revised transmission charges in respect of the transmission assets for 2009-14 period in the instant petition:

(₹ in lakh)

<b>Asset-I</b>					
<b>Particulars</b>	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
Depreciation	217.44	232.81	239.83	239.83	239.83
Return on Equity	1189.01	1250.41	1255.36	1259.08	1274.22
O&M Expenses	765.67	809.5	855.87	904.78	956.43
Interest on Loan	52.00	55.10	42.41	28.81	10.81
Interest on Working Capital	68.70	72.55	74.86	77.10	79.62
<b>Total</b>	<b>2292.82</b>	<b>2420.38</b>	<b>2468.32</b>	<b>2509.60</b>	<b>2560.91</b>



(₹ in lakh)

Asset-II					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	99.07	52.57	52.57	52.57	52.57
Return on Equity	205.74	213.27	213.48	213.48	216.05
O&M Expenses	116.57	123.23	130.29	137.75	145.62
Interest on Loan	17.09	12.46	9.26	6.05	2.84
Interest on Working Capital	12.54	11.96	12.26	12.56	12.94
<b>Total</b>	<b>451.01</b>	<b>413.50</b>	<b>417.85</b>	<b>422.41</b>	<b>430.03</b>

21. We have considered the Petitioner's claim. The tariff is allowed in respect of the transmission assets for 2009-14 period on the basis of the following:

- a) Admitted capital cost of ₹12550 lakh for Asset-I and ₹2060.45 lakh for Asset-II as on 1.4.2009;
- b) ACE of ₹614.70 lakh and ₹127.97 lakh for 2009-10 and 2011-12 period for Asset-I;
- c) Weighted Average Rate of Interest on actual loan derived/adopted from order dated 7.6.2016 in Petition No. 536/TT/2014; and
- d) Weighted Average Rate of Depreciation as per order 7.6.2016 in Petition No. 536/TT/2014.

22. In view of the above, the revised transmission charges allowed in respect of the transmission assets for 2009-14 tariff period are as follows:

(₹ in lakh)

Asset-I					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	217.44	232.81	239.83	239.83	239.83
Interest on Loan	52.00	55.10	42.41	28.81	10.81
Return on equity	1189.01	1250.41	1255.36	1259.08	1274.22
Interest on Working Capital	68.70	72.55	74.86	77.10	79.62
O&M Expenses	765.67	809.50	855.87	904.78	956.43
<b>Total</b>	<b>2292.82</b>	<b>2420.38</b>	<b>2468.32</b>	<b>2509.60</b>	<b>2560.91</b>

(₹ in lakh)

Asset-II					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	99.07	52.57	52.57	52.57	52.57
Interest on Loan	17.09	12.46	9.26	6.05	2.84





Return on equity	205.74	213.27	213.48	213.48	216.05
Interest on Working Capital	12.54	11.96	12.26	12.56	12.94
O&M Expenses	116.57	123.23	130.29	137.75	145.62
<b>Total</b>	<b>451.01</b>	<b>413.50</b>	<b>417.85</b>	<b>422.41</b>	<b>430.03</b>

23. AFC allowed for 2009-14 tariff period vide order dated 7.6.2016 in Petition No. 536/TT/2014, the revised AFC claimed in the instant petition and AFC allowed in the instant order are as follows:

		(₹ in lakh)				
Assets	Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
<b>Asset-I</b>	AFC approved vide order dated 7.6.2016 in Petition No. 536/TT/2014	2247.03	2371.96	2425.03	2480.18	2549.87
	AFC claimed by the Petitioner in the instant petition	2292.82	2420.38	2468.32	2509.60	2560.91
	AFC allowed in the instant order	2292.82	2420.38	2468.32	2509.60	2560.91
<b>Asset-II</b>	AFC approved vide order dated 7.6.2016 in Petition No. 536/TT/2014	447.34	409.83	414.19	418.74	427.56
	AFC claimed by the Petitioner in the instant petition	451.01	413.50	417.85	422.41	430.03
	AFC allowed in the instant order	451.01	413.50	417.85	422.41	430.03

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

24. The Commission vide order dated 7.6.2016 in Petition No. 536/TT/2014 has combined Asset-I and Asset-II into Combined Asset with effective COD (E-COD) as 4.11.1995 and Weighted Average Life (WAL) of 31 years. Accordingly, the remaining useful life as on 31.3.2014 is 13 years.

25. The details of the trued up transmission charges claimed by the Petitioner in respect of the Combined Asset are as follows:

		(₹ in lakh)				
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19	
Depreciation	306.81	306.81	306.81	306.81	306.81	
Interest on Loan	1.53	0.00	0.00	0.00	0.00	
Return on equity	1491.41	1498.25	1497.49	1497.49	1501.51	



Interest on Working Capital	97.31	99.29	101.19	103.17	105.31
O&M Expenses	1011.58	1045.28	1079.97	1115.79	1152.81
<b>Total</b>	<b>2908.64</b>	<b>2949.63</b>	<b>2985.46</b>	<b>3023.26</b>	<b>3066.44</b>

26. The details of the trued up Interest on Working Capital (IWC) in respect of Combined Asset claimed by the Petitioner is as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	84.30	87.11	90.00	92.98	96.07
Maintenance Spares	151.74	156.79	162.00	167.37	172.92
Receivables	484.77	491.61	497.58	503.88	511.07
<b>Total</b>	<b>720.81</b>	<b>735.51</b>	<b>749.58</b>	<b>764.23</b>	<b>780.06</b>
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
<b>Interest</b>	<b>97.31</b>	<b>99.29</b>	<b>101.19</b>	<b>103.17</b>	<b>105.31</b>

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

27. The capital cost of the Combined Asset has been calculated in accordance with Regulations 9(3) and 9(6) of the 2014 Tariff Regulations. The Commission vide order dated 7.6.2016 in Petition No. 536/TT/2014 approved the transmission tariff of the Combined Asset for 2014-19 period based on admitted capital cost of ₹15353.12 lakh as on 1.4.2014. The Petitioner has not claimed any ACE during 2014-19 tariff period. Accordingly, capital cost of ₹15353.12 lakh in respect of the Combined Asset has been considered for the purpose of truing up of the tariff for 2014-19 tariff period.

28. The capital cost considered for truing up of tariff for 2014-19 tariff period is as follows:

(₹ in lakh)		
Capital Cost as in 1.4.2014	ACE during 2014-19 Period	Capital Cost as in 31.3.2019
15353.12	0.00	15353.12



### **Debt-Equity Ratio**

29. 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, debt-equity ratio allowed by the Commission for determination of tariff for the period ending on 31.3.2014 shall be considered. Accordingly, debt-equity ratio of 50.50:49.50 has been considered as opening debt-equity ratio as on 1.4.2014 for the purpose of truing up of tariff of 2014-19 period in respect of the Combined Asset. The details of debt-equity ratio of the Combined Asset as on 1.4.2014 and 31.3.2019 are as follows:

<b>Funding</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	7753.60	50.50	7753.60	50.50
Equity	7599.52	49.50	7599.52	49.50
<b>Total</b>	<b>15353.12</b>	<b>100.00</b>	<b>15353.12</b>	<b>100.00</b>

### **Depreciation**

30. The depreciation has been worked out as per the methodology provided in Regulation 27 of the 2014 Tariff Regulations. Depreciation has been allowed considering capital expenditure as on 1.4.2014 and approved ACE during 2014-19 tariff period. With effective COD (E-COD) as 4.11.1995, the Combined Asset has completed 12 years of life as on 31.3.2008. The remaining depreciable value has been spread across the balance useful life of the asset and depreciation allowed during 2014-19 period in respect of the Combined Asset is as follows:

	<b>(₹ in lakh)</b>				
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Opening Gross Block	15353.12	15353.12	15353.12	15353.12	15353.12
ACE	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	15353.12	15353.12	15353.12	15353.12	15353.12
Average Gross Block	15353.12	15353.12	15353.12	15353.12	15353.12
Weighted average Rate of	2.00	2.00	2.00	2.00	2.00



Depreciation (%)					
Balance useful life (at the beginning of the year) (Year)	13.00	12.00	11.00	10.00	9.00
Aggregate Depreciable Value	13461.63	13461.63	13461.63	13461.63	13461.63
<b>Depreciation during the year</b>	<b>306.80</b>	<b>306.80</b>	<b>306.80</b>	<b>306.80</b>	<b>306.80</b>
Cumulative Aggregate Depreciation	9779.98	10086.79	10393.59	10700.40	11007.20
Remaining Aggregate Depreciable Value	3681.65	3374.84	3068.04	2761.24	2454.43

31. Accordingly, depreciation approved vide order dated 7.6.2016 in Petition No. 536/TT/2014, depreciation claimed in the instant petition and trued up depreciation allowed in respect of the Combined Asset is as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 7.6.2016 in Petition No. 536/TT/2014	306.80	306.80	306.80	306.80	306.80
Claimed by the Petitioner in the instant petition	306.81	306.81	306.81	306.81	306.81
Approved after true-up in this order	306.80	306.80	306.80	306.80	306.80

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

32. IoL has been worked out in accordance with Regulation 26 of the 2014 Tariff Regulations. The Petitioner has claimed IoL based on actual interest rates for each year during 2014-19 period. The Petitioner has considered the weighted average rate of IoL on the basis of prevailing rates as on 1.4.2014 for respective loans and has prayed to consider the floating rate of interest applicable during 2014-19 period, if any, during the truing-up of tariff.

33. We have considered the submissions of the Petitioner. IoL has been considered based on the actual interest rate, in accordance with Regulation 26 of the 2014 Tariff Regulations.



34. The details of the trued-up IoL allowed in respect of the Combined Asset are as follows:

(₹ in lakh)	
Particulars	2014-15
Gross Normative Loan	7753.60
Cumulative Repayments up to Previous Year	7714.79
Net Loan-Opening	38.81
Addition due to ACE	0.00
Repayment during the year	38.81
Net Loan-Closing	0.00
Average Loan	19.41
Weighted Average Rate of Interest on Loan (%)	7.858
<b>Interest on Loan</b>	<b>1.52</b>

35. Accordingly, IoL approved vide order dated 7.6.2016 in Petition No. 536/TT/2014, claimed by the Petitioner in the instant petition and trued up IoL in the instant order is as follows:

(₹ in lakh)	
Particulars	2014-15
Allowed vide order dated 7.6.2016 in Petition No. 536/TT/2014	0.00
Claimed by the Petitioner in the instant petition	1.53
Approved after true-up in this order	1.52

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

36. The Petitioner has claimed RoE in respect of the Combined 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 the following effective tax rates for 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
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37. We have considered the submissions of the Petitioner. The Commission vide order dated 27.4.2020 in Petition No. 274/TT/2019 has arrived at the effective tax rate based on the notified MAT rates for the Petitioner and the same is as follows:

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

38. The MAT rates as considered vide 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 2014-19 tariff period in terms of the provisions of the 2014 Tariff Regulations and the same are as follows:

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

39. Accordingly, RoE allowed in respect of the Combined Asset is as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	7599.52	7599.52	7599.52	7599.52	7599.52
Addition due to ACE	0.00	0.00	0.00	0.00	0.00
Closing Equity	7599.52	7599.52	7599.52	7599.52	7599.52
Average Equity	7599.52	7599.52	7599.52	7599.52	7599.52
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
Tax Rate applicable (%)	20.961	21.342	21.342	21.342	21.549
Applicable RoE Rate (%)	19.610	19.705	19.705	19.705	19.758
<b>Return on Equity for the year</b>	<b>1490.27</b>	<b>1497.49</b>	<b>1497.49</b>	<b>1497.49</b>	<b>1501.51</b>



40. Accordingly, RoE approved vide order dated 7.6.2016 in Petition No. 536/TT/2014, RoE claimed in the instant petition and true up RoE allowed in respect of the Combined Asset is as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 7.6.2016 in Petition No. 536/TT/2014	1490.27	1490.27	1490.27	1490.27	1490.27
Claimed by the Petitioner in the instant petition	1491.41	1498.25	1497.49	1497.49	1501.51
Approved after true-up in this order	1490.27	1497.49	1497.49	1497.49	1501.51

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

41. O&M Expenses claimed by the Petitioner are within the norms specified under the 2014 Tariff Regulations. The allowable O&M Expenses are as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Sub-station Bays (Number)</b>					
400 kV bays	11	11	11	11	11
220 kV bays	4	4	4	4	4
<b>Norm (₹ lakh/bay)</b>					
400 kV	60.30	62.30	64.37	66.51	68.71
220 kV	42.21	43.61	45.06	46.55	48.10
<b>Total sub-station O&amp;M Expenses (₹ in lakh)</b>	<b>832.14</b>	<b>859.74</b>	<b>888.31</b>	<b>917.81</b>	<b>948.21</b>
<b>AC Transmission Lines</b>					
400 kV Single Circuit Twin Conductor Hissar - Bhiwani – I	34.52	34.52	34.52	34.52	34.52
220 kV Double Circuit Single Conductor Hissar - Hissar CKT.-III & IV	13.77	13.77	13.77	13.77	13.77
400 kV Double Circuit Twin Conductor Moga - Hissar CKT.- I & II	209.39	209.39	209.39	209.39	209.39
400 kV Single Circuit Twin Conductor Hissar-Bawana Line(CKT-II of Hissar-Bhiwani,connected with Ckt-II of D/C Bhiwani-Bawana NJTS)	32.88	32.88	32.88	32.88	32.88
<b>Norm (₹ lakh/km)</b>					
Single Circuit Twin Conductor	0.404	0.418	0.432	0.446	0.461
Double Circuit Single Conductor	0.303	0.313	0.324	0.334	0.346
Double Circuit Twin Conductor	0.707	0.731	0.755	0.780	0.806



<b>Total Transmission Line</b>	<b>179.44</b>	<b>185.55</b>	<b>191.67</b>	<b>197.98</b>	<b>204.60</b>
<b>Total O&amp;M Expenses</b>	<b>1011.58</b>	<b>1045.29</b>	<b>1079.98</b>	<b>1115.79</b>	<b>1152.81</b>

42. Accordingly, O&M Expenses approved vide order dated 7.6.2016 in Petition No. 536/TT/2014, O&M Expenses claimed in the instant petition and trued up O&M Expenses allowed in respect of the Combined Asset are as follows:

<b>Particulars</b>	<b>(₹ in lakh)</b>				
	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Allowed vide order dated 7.6.2016 in Petition No. 536/TT/2014	1011.58	1045.28	1079.97	1115.79	1152.82
Claimed by the Petitioner in the instant petition	1011.58	1045.28	1079.97	1115.79	1152.81
Approved after true-up in this order	1011.58	1045.29	1079.98	1115.79	1152.81

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

43. The Petitioner is entitled to IWC as per Regulation 28 of the 2014 Tariff Regulations in respect of the Combined Asset and the same is as follows:

#### **i. Working Capital for Maintenance Spares**

Maintenance spares have been worked out based on 15% of Operation and Maintenance Expenses.

#### **ii. Working Capital for O & M Expenses**

O&M Expenses have been considered for one month of the allowed O&M Expenses.

#### **iii. Working Capital for Receivables**

The receivables have been worked out on the basis of 2 months of annual transmission charges as worked out above.

#### **iv. Rate of Interest on Working Capital**

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

44. IWC allowed in respect of the Combined Asset is as follows:





(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses (O&M Expenses for One Month)	84.30	87.11	90.00	92.98	96.07
Maintenance Spares (15% of O&M Expenses)	151.74	156.79	162.00	167.37	172.92
Receivables (Equivalent to Two months of annual transmission charges)	484.58	491.48	497.58	503.88	511.07
<b>Total Working Capital</b>	<b>720.61</b>	<b>735.38</b>	<b>749.57</b>	<b>764.23</b>	<b>780.06</b>
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
<b>Interest of working capital</b>	<b>97.28</b>	<b>99.28</b>	<b>101.19</b>	<b>103.17</b>	<b>105.31</b>

45. Accordingly, IWC approved vide order dated 7.6.2016 in Petition No. 536/TT/2014, IWC claimed in the instant petition and trued up IWC allowed in respect of the Combined Asset are as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 7.6.2016 in Petition No. 536/TT/2014	97.25	99.11	101.03	103.00	105.05
Claimed by the Petitioner in the instant petition	97.31	99.29	101.19	103.17	105.31
Approved after true-up in this order	97.28	99.28	101.19	103.17	105.31

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

46. The trued up Annual Fixed Charges (AFC) in respect of the Combined Asset for 2014-19 tariff period are as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	306.80	306.80	306.80	306.80	306.80
Interest on Loan	1.52	0.00	0.00	0.00	0.00
Return on Equity	1490.27	1497.49	1497.49	1497.49	1501.51
Interest on Working Capital	97.28	99.28	101.19	103.17	105.31
O&M Expenses	1011.58	1045.29	1079.98	1115.79	1152.81
<b>Total</b>	<b>2907.46</b>	<b>2948.85</b>	<b>2985.46</b>	<b>3023.25</b>	<b>3066.44</b>



47. Accordingly, AFC approved vide order dated 7.6.2016 in Petition No. 536/TT/2014, as claimed in the instant petition and true up AFC allowed in respect of the Combined Asset are as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed earlier vide order dated 7.6.2016 in Petition No. 536/TT/2014	2905.90	2941.46	2978.07	3015.86	3054.94
As claimed by the Petitioner in the instant petition	2908.64	2949.63	2985.46	3023.26	3066.44
Approved after true-up in this order	2907.46	2948.85	2985.46	3023.25	3066.44

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

48. The Petitioner has claimed the following transmission charges in respect of the Combined Asset for 2019-24 tariff period:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	328.14	408.27	489.15	557.16	847.10
Interest on Loan	0.00	6.37	6.37	0.00	24.72
Return on equity	1435.16	1459.97	1488.51	1508.68	1561.73
Interest on Working Capital	65.53	68.64	71.77	74.48	81.37
O & M Expenses	895.24	926.91	959.35	993.24	1027.35
<b>Total</b>	<b>2724.07</b>	<b>2870.16</b>	<b>3015.15</b>	<b>3133.56</b>	<b>3542.27</b>

49. The details of IWC claimed by the Petitioner in respect of the Combined Asset are as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M expenses	74.60	77.24	79.95	82.77	85.61
Maintenance Spares	134.29	139.04	143.90	148.99	154.10
Receivables	334.93	353.38	371.73	386.33	435.53
<b>Total</b>	<b>543.82</b>	<b>569.66</b>	<b>595.58</b>	<b>618.09</b>	<b>675.24</b>
Rate of Interest (%)	12.05	12.05	12.05	12.05	12.05
<b>Interest</b>	<b>65.53</b>	<b>68.64</b>	<b>71.77</b>	<b>74.48</b>	<b>81.37</b>

### **Capital Cost**

50. 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 trued up by excluding liability, if any, as on 1.4.2019;*
- (b) Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;*
- (c) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*



*(d) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*

*(e) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal up to the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and*

*(f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.”*

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

*(a) cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and*

*(b) cost of the developer's 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area.*

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

*(a) The asset forming part of the project, but not in use, as declared in the tariff petition;*

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

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

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

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

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

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

51. The admitted capital cost of ₹15353.12 lakh as on 31.3.2019 in respect of the Combined Asset has been considered as opening capital cost as on 1.4.2019 for determination of tariff in accordance with Regulation 19 of the 2019 Tariff Regulations.



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

52. Regulation 24 and Regulation 25 of the 2019 Tariff Regulations provide as follows:

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

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

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

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

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

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

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

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

*(2) In case of replacement of 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.”

53. The Petitioner vide Auditor’s Certificate has projected net ACE of ₹2090.41 lakh for Asset-I and ₹1394.62 lakh for Asset-II after adjusting for de-capitalisation during 2019-24 tariff period as follows:

Particulars	(₹ in lakh)	
	Asset-1	Asset-2
ACE in 2019-20	341.03	0.00
ACE in 2020-21	597.23	188.12
ACE in 2021-22	435.57	0.00
ACE in 2022-23	324.84	0.00
ACE in 2023-24	530.04	1486.65
De-Capitalization in 2019-20	38.23	0.00
De-Capitalization in 2020-21	72.78	33.87
De-Capitalization in 2021-22	15.73	0.00
De-Capitalization in 2022-23	11.1	0.00
De-Capitalization in 2023-24	0.46	246.28

54. The Petitioner has submitted that the projected ACE during 2019-24 is towards replacement of some of the components/ equipment in the system which have deteriorated due to ageing and may affect the stability and reliability of the Grid in case of sudden failure. The equipment are within the original scope of work and are covered under Regulation 25(2) of the 2019 Tariff Regulations. The Petitioner has given the detailed justification for replacement of the old and obsolete equipment like circuit breaker, retro-fitment of ICT & reactors protection relays, retro-fitment of 220 kV bus bar protection relays, replacement of PLCC protection channel, current transformer, CVT, isolator, fire-fighting system, replacement of single moose conductor with twin moose conductor - 220 kV along with erection hardware and



accessories, 48 V battery bank-1&2 and battery charger-1&2, replacement of existing centralized air-conditioning system and buildings which are to be demolished and re-constructed as the same are of load bearing wall type and are not safe.

55. The Petitioner has further submitted that the proposed work of replacement of equipment has started and few equipment have been replaced and others are yet to be replaced. The exact date of de-capitalization and actual date of equipment which are yet to be replaced cannot be ascertained in advance as it depends on many factors such as shut-down availability as the work is to be carried out in an existing system. The Petitioner has submitted that the equipment are replaced as early as possible after dismantling. The Petitioner has submitted that as the cost is on anticipated basis which is subject to true-up, the exact date will be submitted after completion of all the works at the time of true-up of 2019-24 tariff period. The Petitioner has submitted that it has a long experience in operation and maintenance of EHV transmission system and it follows the best in class practices and the decision of replacement of equipment is taken keeping in view the reliability of the system and based on difficulties being faced by the Petitioner during the maintenance. The Petitioner has further submitted that the beneficiaries are Respondents in the present petition and none of the Respondents have raised any question with regard to replacement of equipment.

56. The Petitioner vide Auditor's Certificate dated 6.1.2020 has submitted the cost details for ACE/ de-capitalization proposed during 2019-24 tariff period under various heads and they are as follows:



(₹ in lakh)

Particulars	Asset-1	Asset-2		Combined	
	Sub-station (A)	Building and Civil Works (B)	Sub-station (C)	Building and Civil Works D=B	Sub-station E=(A+C)
Proposed ACE in 2019-20	341.03	0.00	0.00	0.00	341.03
Proposed De-capitalisation in 2019-20	(38.23)	0.00	0.00	0.00	(38.23)
Proposed ACE in 2020-21	597.23	0.00	188.12	0.00	785.35
Proposed De-capitalisation in 2020-21	(72.78)	0.00	(33.87)	0.00	(106.65)
Proposed ACE in 2021-22	435.57	0.00	0.00	0.00	435.57
Proposed De-capitalisation in 2021-22	(15.73)	0.00	0.00	0.00	(15.73)
Proposed ACE in 2022-23	324.84	0.00	0.00	0.00	324.84
Proposed De-capitalisation in 2022-23	(11.10)	0.00	0.00	0.00	(11.10)
Proposed ACE in 2023-24	530.04	1142.70	343.95	1142.70	873.99
Proposed De-capitalisation in 2023-24	(0.46)	(231.97)	(14.31)	(231.97)	14.77
<b>NET ACE</b>	<b>2090.41</b>	<b>910.73</b>	<b>483.89</b>	<b>910.73</b>	<b>2574.30</b>

57. In response to a Commission's query with respect to expected life extension by proposed ACE and OEMs' recommendations, the Petitioner has submitted that ACE during 2019-24 period is towards problematic equipment like CT, CVT, CB, Isolators, etc. that are proposed to be replaced to ensure system reliability. In addition to equipment like CT, CVT, CB, Isolators, Transformers, Reactors, C&R panels etc. there are many other equipment/ materials like earthing system, tower and gantry structures, cables, which play a very important role in operation of any sub-station. The Petitioner has submitted that it is very difficult for it to assess the life of the complete project. The equipment are replaced based on condition monitoring. However, balance of the system still remains under service for which replacement may be required in near future. The Petitioner has submitted that gross block of old equipment being proposed to be replaced in the instant petition is hardly 1.04% for Asset-I and 13.60% for Asset-II of the total gross block of the project. However, other equipment of the project remains the same as commissioned as per original





project. The Petitioner has submitted that only some of the equipment are proposed to be replaced and majority of items are old and they may need replacement in future considering the fact that life of the present transmission project completes in FY 2026-27. The Petitioner has not proposed any further life extension.

58. We have considered the submissions of the Petitioner. The Petitioner has proposed ACE during 2019-24 tariff period. The Petitioner has neither submitted the consent of the beneficiaries. The “building and civil works” are non-critical in nature and, therefore, we are not inclined to allow ACE claimed by the Petitioner towards “building & civil works” under Regulation 25(2)(a) of the 2019 Tariff Regulations. However, the Petitioner may obtain the approval of RPC and file a separate petition for ACE towards “building and civil works” for consideration by the Commission. It is also directed that in all future cases where substantial ACE is proposed at the fag end of useful life of any transmission asset, the Petitioner shall submit the consent of beneficiaries/ Respondents.

59. The remaining proposed ACE is towards replacement of isolators, CTs, Capacitive Voltage Transformers (CVTs), control and relay panels, CB and power and control cables due to obsolescence of technology. These items are of critical nature and their failure may affect the stability and reliability of the grid. Hence, the replacement of these obsolete equipment and consequential ACE towards this is approved, subject to true-up on actual basis. The Petitioner is also directed to submit the details of abstract cost estimate and details of the actual cost of the replaced equipment sub-station wise at the time of truing up.

60. ACE and de-capitalisation allowed for 2019-24 tariff period are as follows:



(₹ in lakh)

Particulars	Asset-I	Asset-II	Combined
	Sub-station (A)	Sub-station (B)	Sub-station C=(A+B)
Proposed ACE in 2019-20	341.03	0.00	341.03
Proposed De-capitalisation in 2019-20	(38.23)	0.00	(38.23)
Proposed ACE in 2020-21	597.23	188.12	785.35
Proposed De-capitalisation in 2020-21	(72.78)	(33.87)	(106.65)
Proposed ACE in 2021-22	435.57	0.00	435.57
Proposed De-capitalisation in 2021-22	(15.73)	0.00	(15.73)
Proposed ACE in 2022-23	324.84	0.00	324.84
Proposed De-capitalisation in 2022-23	(11.10)	0.00	(11.10)
Proposed ACE in 2023-24	530.04	343.95	873.99
Proposed De-capitalisation in 2023-24	(0.46)	(14.31)	14.77
<b>NET ACE</b>	<b>2090.41</b>	<b>483.89</b>	<b>2574.30</b>

(₹ in lakh)

S.N.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
1	ACE	341.03	785.35	435.57	324.84	873.99
2	De-capitalisation	38.23	106.65	15.73	11.10	14.77
3	Net ACE (3=1-2)	<b>302.79</b>	<b>678.70</b>	<b>419.83</b>	<b>313.74</b>	<b>859.22</b>

61. Accordingly, capital cost in respect of the Combined Asset as on 31.3.2024 is approved as follows:

(₹ in lakh)

Capital Cost as on 1.4.2019	Approved Net ACE					Capital Cost as on 31.3.2024
	2019-20	2020-21	2021-22	2022-23	2023-24	
15353.12	302.79	678.70	419.83	313.74	859.22	17927.40

### **Debt-Equity Ratio**

62. 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.”

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

<b>Funding</b>	<b>Capital cost as on 1.4.2019 (₹ in lakh)</b>	<b>(%)</b>	<b>Total cost as on 31.3.2024 (₹ in lakh)</b>	<b>(%)</b>
Debt	7753.60	50.50	9594.57	53.52
Equity	7599.52	49.50	8332.83	46.48
<b>Total</b>	<b>15353.12</b>	<b>100.00</b>	<b>17927.40</b>	<b>100.00</b>

### **Depreciation**

64. 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 or 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.”

65. We have considered the submissions of the Petitioner. The Combined Asset has already completed 12 years of life as on 31.3.2008. The remaining depreciable value has been spread across the balance useful life of the Combined Asset. The depreciation allowed in respect of the Combined Asset for 2019-24 tariff period is as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	15353.12	15655.91	16334.61	16754.44	17068.18
NET Addition during 2019-24 due to projected ACE	302.79	678.70	419.83	313.74	859.22
Closing Gross Block	15655.91	16334.61	16754.44	17068.18	17927.40
Average Gross Block	15504.52	15995.26	16544.53	16911.31	17497.79
Lapsed useful life at the beginning of the year (Year)	23.00	24.00	25.00	26.00	27.00
Balance useful life at the beginning of the year (Year)	8.00	7.00	6.00	5.00	4.00
Depreciable Value	13597.89	14039.56	14533.90	14864.00	15391.84
Rate of Depreciation (%)	2.09	2.45	2.96	3.30	3.96
<b>Depreciation during the year</b>	<b>323.84</b>	<b>391.85</b>	<b>489.59</b>	<b>558.44</b>	<b>692.90</b>
Cumulative Aggregate Depreciation at the end of the year	11296.63	11596.36	12071.79	12620.24	13299.86
Remaining Aggregate Depreciable Value at the end of the year	2266.85	2351.09	2447.94	2233.77	2078.70



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

66. 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.*

(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”.*



67. Gross normative loan has already been repaid prior to 1.4.2016 and, therefore, IoL has been considered on ACE. The Weighted Average Rate of IoL has been considered on the basis of the rates prevailing as on 1.4.2019. The Petitioner has prayed that change in interest rate due to floating rates of interest applicable, if any, during 2019-24 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true up. In view of above, IoL has been worked out in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL allowed in respect of the Combined Asset for 2019-24 tariff period is as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	7753.60	7973.20	8470.79	8767.83	8989.66
Cumulative Repayments up to Previous Year	7753.60	7973.20	8312.89	8767.83	8989.66
Net Loan-Opening	0.00	0.00	157.90	0.00	0.00
Addition due to ACE	238.72	549.75	304.90	227.39	611.79
Repayment during the year	238.72	391.85	462.80	227.39	611.79
Adjustment of cumulative repayment pertaining to de-capitalised asset	19.12	52.15	7.87	5.55	6.89
Net Loan-Closing	0.00	157.90	0.00	0.00	0.00
Average Loan	0.00	78.95	78.95	0.00	0.00
Weighted Average Rate of Interest (WAROI) on Loan (%)	8.768	8.768	8.766	8.764	8.759
<b>Interest on Loan</b>	<b>0.00</b>	<b>6.92</b>	<b>6.92</b>	<b>0.00</b>	<b>0.00</b>

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

68. 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:

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.”

69. The Petitioner has submitted that MAT rate is applicable to the Petitioner's Company. Accordingly, 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 in respect of the Combined 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	7599.52	7682.71	7863.82	7986.61	8078.52
Addition due to ACE	102.31	235.61	130.67	97.45	262.20
Decrease due to de-capitalisation during the period	19.12	54.50	7.87	5.55	7.88
Closing Equity	7682.71	7863.82	7986.62	8078.52	8332.83
Average Equity	7641.12	7773.27	7925.22	8032.57	8205.67
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (%)	18.782	18.782	18.782	18.782	18.782
<b>Return on Equity</b>	<b>1435.15</b>	<b>1459.97</b>	<b>1488.52</b>	<b>1508.68</b>	<b>1541.19</b>



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

70. Regulation 35(3)(a) and Regulation 35 (4) of the 2019 Tariff Regulations specify the norms for O&M Expenses for the transmission system as follows:

**“(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>
<i>Norms for sub-station Bays (₹ Lakh per bay)</i>					
765 kV	45.01	46.60	48.23	49.93	51.68
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84
132 kV and below	16.08	16.64	17.23	17.83	18.46
<i>Norms for Transformers (₹ Lakh per MVA)</i>					
765 kV	0.491	0.508	0.526	0.545	0.564
400 kV	0.358	0.371	0.384	0.398	0.411
220 kV	0.245	0.254	0.263	0.272	0.282
132 kV and below	0.245	0.254	0.263	0.272	0.282
<i>Norms for AC and HVDC lines (₹ Lakh per km)</i>					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-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
<i>Norms for HVDC stations</i>					
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



<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
<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.”

71. O&M Expenses claimed by the Petitioner in respect of the Combined Asset are as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Sub-station Bays (Number)</b>					
400 kV bays	11	11	11	11	11
220 kV bays	4	4	4	4	4
<b>Norm (₹ lakh/bay)</b>					
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84
<b>Total Sub-station O&amp;M Expenses (₹ in lakh)</b>	<b>443.69</b>	<b>459.28</b>	<b>475.43</b>	<b>492.10</b>	<b>509.37</b>
<b>Transformer (MVA)</b>					
400 kV Hissar:ICT-I & II (2X315 MVA ICTS)	630	630	630	630	630
<b>Norms (₹ lakh/MVA)</b>					
400 kV	0.358	0.371	0.384	0.398	0.411
<b>Total Transformer (₹ in lakh)</b>	<b>225.54</b>	<b>233.73</b>	<b>241.92</b>	<b>250.74</b>	<b>258.93</b>
<b>AC Transmission Lines</b>					
400 kV Single Circuit Twin Conductor Hissar - Bhiwani – I	34.52 km				
220 kV Double Circuit Single Conductor Hissar - Hissar CKT.-III & IV	13.77 km				
400 kV Double Circuit Twin Conductor Moga - Hissar CKT.- I & II	209.39 km				
400 kV Single Circuit Twin Conductor Hissar-Bawana Line(CKT-II of Hissar-Bhiwani,connected with Ckt-II of D/C Bhiwani-Bawana NJTS)	32.88 km				
<b>Norm (₹ lakh/km)</b>					
Single Circuit Twin Conductor	0.503	0.521	0.539	0.558	0.578
Double Circuit Single Conductor	0.377	0.391	0.404	0.419	0.433
Double Circuit Twin Conductor	0.881	0.912	0.944	0.977	1.011
<b>Total Transmission Line</b>	<b>223.57</b>	<b>231.46</b>	<b>239.56</b>	<b>247.95</b>	<b>256.61</b>
<b>Communication System</b>					
PLCC (₹ in lakh)	122.31	122.31	122.31	122.31	122.31
<b>Norms (%)</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>
<b>Total Communication System</b>	<b>2.45</b>	<b>2.45</b>	<b>2.45</b>	<b>2.45</b>	<b>2.45</b>
<b>Total O&amp;M Expenses</b>	<b>895.24</b>	<b>926.92</b>	<b>959.35</b>	<b>993.24</b>	<b>1027.36</b>



72. The Petitioner has claimed O&M Expenses separately for the PLCC under Regulation 35(4) of the 2019 Tariff Regulations @2% of its original project cost in the instant petition and the Petitioner has made similar claim in other petitions as well. Though PLCC is a communication system, it has been considered as part of the sub-station in the 2014 Tariff 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.

73. O&M Expenses approved in respect of the Combined 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 (Number)</b>					
400 kV bays	11	11	11	11	11
220 kV bays	4	4	4	4	4
<b>Norm (₹ lakh/bay)</b>					
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84
<b>Total Sub-station O&amp;M Expenses (₹ in lakh)</b>	<b>443.69</b>	<b>459.28</b>	<b>475.43</b>	<b>492.10</b>	<b>509.37</b>
<b>Transformer (MVA)</b>					
400 kV Hissar:ICT-I & II	630	630	630	630	630
<b>Norms (₹ lakh/MVA)</b>					
400 kV	0.358	0.371	0.384	0.398	0.411
<b>Total Transformer (₹ in lakh)</b>	<b>225.54</b>	<b>233.73</b>	<b>241.92</b>	<b>250.74</b>	<b>258.93</b>
<b>AC Transmission Lines</b>					
400 kV Single Circuit Twin Conductor Hissar - Bhiwani – I	34.52 km				
220 kV Double Circuit Single Conductor Hissar - Hissar CKT.-III & IV	13.77 km				
400 kV Double Circuit Twin Conductor Moga - Hissar CKT.- I & II	209.39 km				



400 kV Single Circuit Twin Conductor Hissar-Bawana Line(CKT-II of Hissar-Bhiwani,connected with Ckt-II of D/C Bhiwani-Bawana NJTS)	32.88 km				
<b>Norm (₹ lakh/km)</b>					
Single Circuit Twin Conductor	0.503	0.521	0.539	0.558	0.578
Double Circuit Single Conductor	0.377	0.391	0.404	0.419	0.433
Double Circuit Twin Conductor	0.881	0.912	0.944	0.977	1.011
<b>Total Transmission Line</b>	<b>223.57</b>	<b>231.46</b>	<b>239.56</b>	<b>247.95</b>	<b>256.61</b>
<b>Total O&amp;M Expenses</b>	<b>892.80</b>	<b>924.47</b>	<b>956.91</b>	<b>990.79</b>	<b>1024.91</b>

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

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

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

(1)...

(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;”



75. 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%. 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, 11.25% (SBI 1 year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) for 2020-21 and 10.50% (SBI 1 year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points) for 2021-24. The components of the working capital and interest thereon allowed in respect of the Combined Asset are as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses (O&M Expenses for One Month)	74.40	77.04	79.74	82.57	85.41
Maintenance Spares (15% of O&M)	133.92	138.67	143.54	148.62	153.74
Receivables (Equivalent to two months of annual transmission charges)	334.08	351.00	370.39	384.98	409.07
<b>Total Working Capital</b>	<b>542.39</b>	<b>566.71</b>	<b>593.67</b>	<b>616.16</b>	<b>648.21</b>
Rate of Interest (%)	12.05	11.25	10.50	10.50	10.50
<b>Interest of working capital</b>	<b>65.36</b>	<b>63.75</b>	<b>62.34</b>	<b>64.70</b>	<b>68.06</b>

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

76. The transmission charges allowed in respect of the Combined Asset for 2019-24 period are as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	323.84	391.85	489.59	558.44	692.90
Interest on Loan	0.00	6.92	6.92	0.00	0.00
Return on Equity	1435.15	1459.97	1488.52	1508.68	1541.19
Interest on Working Capital	65.36	63.75	62.34	64.70	68.06
O&M Expenses	892.80	924.47	956.91	990.79	1024.91
<b>Total</b>	<b>2717.14</b>	<b>2846.97</b>	<b>3004.26</b>	<b>3122.61</b>	<b>3327.07</b>



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

77. 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**

78. The Petitioner has requested to allow the Petitioner to bill and recover License fee and RLDC fees and charges, separately from the Respondents.

79. 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 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 period.

### **Goods and Services Tax**

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

81. 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**

82. The Petitioner has submitted that security expenses for the Combined 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.

83. 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 said petition has already been disposed of by the Commission vide order dated 3.8.2021. 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**

84. 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**

85. During the tariff periods 2004-09 and 2009-14 (upto 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, the 2010 Sharing Regulations has been repealed and sharing is governed by the provisions of the 2020 Sharing Regulations. Accordingly, the liabilities of DICs for arrears of transmission charges determined through this order



shall be computed DIC-wise in accordance with the provisions of respective 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 provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.

86. To summarise:

a) The revised AFC allowed in respect of the transmission assets for the period from 1.4.2004 to 31.3.2009 as per the APTEL's judgments are:

(₹ in lakh)

Asset-I					
Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
AFC	1831.81	1846.75	1862.79	1878.96	1754.55

(₹ in lakh)

Asset-II					
Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
AFC	318.93	318.81	318.83	318.90	319.18

b) The consequential revision of AFC allowed in respect of the transmission assets for 2009-14 tariff period are:

(₹ in lakh)

Asset-I					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
AFC	2292.82	2420.38	2468.32	2509.60	2560.91

(₹ in lakh)

Asset-II					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
AFC	451.01	413.50	417.85	422.41	430.03

c) The trued-up AFC allowed in respect of the Combined Asset for 2014-19 tariff period are as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
AFC	2907.46	2948.85	2985.46	3023.25	3066.44



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

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
AFC	2717.14	2846.97	3004.26	3122.61	3327.07

87. This order disposes of Petition No. 683/TT/2020 in terms of the above discussions and findings.

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

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

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

