

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 271/TT/2020**

**Coram:**

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

**Date of order : 27.05.2022**

**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 2001-04, 2004-09 and 2009-14 tariff periods and truing up of transmission tariff of the 2014-19 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of the 2019-24 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for (a) 400 kV Meerut-Mandola Ckt-I along with associated bays at Meerut and Mandola Sub-stations, (b) 400 kV Meerut-Mandola Ckt-II along with associated bays at Meerut and Mandola Sub-stations, (c) ICT-II along with associated bays at Meerut Sub-station, (d) ICT-III along with associated bays at Meerut Sub-station, (e) ICT-I along with associated bays at Meerut Sub-station, (f) 800 kV Tehri-Meerut Ckt-I along with associated bays, (g) 800 kV Tehri-Meerut Ckt-II and 400 kV S/C Meerut- Muzaffarpur transmission line, and (h) ICT at Muzaffarnagar along with one No. 400 kV and one No. 220 kV bay under Tehri 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**

**Versus**

1. Rajasthan Rajya Vidyut Prasaran Nigam Limited,  
Vidyut Bhawan, Vidyut Marg,  
Jaipur-302 005 (Rajasthan).
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).
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,  
Government of Jammu & Kashmir,  
Mini Secretariat, Jammu.
9. Uttar Pradesh Power Corporation Limited,  
(Formerly Uttar Pradesh State Electricity Board),  
Shakti Bhawan, 14, Ashok Marg,  
Lucknow-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-110009.



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 A. K. Verma, PGCIL

**For Respondents** : None

### **ORDER**

The instant petition has been filed by Power Grid Corporation of India Limited, a deemed transmission licensee for revision of transmission tariff of 2001-04, 2004-09 and 2009-14 tariff 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”) for (A) Stage-I Combined Assets consisting of (a) 400 kV Meerut-Mandola Ckt-I along with associated bays at Meerut and Mandola Sub-stations (b) 400 kV Meerut-Mandola Ckt-II along with associated bays at Meerut and Mandola Sub-stations (c) ICT-II along with associated bays at Meerut Sub-station (d) ICT-III



along with associated bays at Meerut sub-station and (B) Stage-II Combined Assets consisting of (e) ICT-I along with associated bays at Meerut Sub-station (f) 800 kV Tehri-Meerut Ckt-I along with associated bays (g) 800 kV Tehri-Meerut Ckt-II and 400 kV S/C Meerut- Muzaffarpur Transmission Line and (h) ICT at Muzaffarnagar along with one No. 400 kV and one No. 220 kV bay under Tehri Transmission System in Northern Region (hereinafter referred as “transmission asset”).

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

*“1) Approve the revised Transmission Tariff for 2001-04 block, 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 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 materialised as per regulation 49 of 2014 and regulation 67 of 2019 tariff regulation. The petitioner may be allow to recover the deferred tax liability materialised directly without making any application before the commission as provided in the regulation.*

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

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

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



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

8) Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 10.5 above.

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

10) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the respondents, if GST on transmission is 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 original Investment Approval (IA) for the transmission system was accorded by the Ministry of Power vide its letter dated 15.3.1994 at an estimated cost of ₹42100 lakh, which included IDC of ₹5000 lakh. Subsequently, revised cost estimate for the transmission system was approved by the Ministry of Power vide its letter dated 20.8.2002 at an estimated cost of ₹70229 lakh which included IDC of ₹13601 lakh. The cost estimate for the transmission system was further revised by the Ministry of Power vide letter dated 9.1.2006 to ₹91384 lakh, which included IDC of ₹26916 lakh.

(b) The Petitioner has built the transmission asset in the Northern Region and put under commercial operation as stated follows:

Assets	Particulars	COD	Actual line length in km /Number of Bays
	<b>Stage-I Combined Assets</b>		
Asset-a	400 kV Meerut-Mandola Ckt-I along with associated bays at Meerut and Mandola sub-stations	1.10.2003	• D/C twin conductor transmission line of total 59.868 km,
Asset-b	400 kV Meerut-Mandola Ckt-II along	1.4.2003	



	with associated bays at Meerut and Mandola sub-stations		• 6 no.s of 220 kV bays, and
Asset-c	ICT-II along with associated bays at Meerut sub-station	1.4.2003	
Asset-d	ICT-III along with associated bays at Meerut sub-station	1.7.2003	• 6 no.s of 400 kV bays
	<b>Stage-II Combined Assets</b>		
Asset-e	ICT-I along with associated bays at Meerut Sub-station	1.8.2005	• S/C transmission line with four conductors of total 369.489 km,
Asset-f	800 kV Tehri-Meerut Ckt-I along with associated bays	1.4.2006	• S/C twin conductor transmission line of total 37.387 km,
Asset-g	800 kV Tehri-Meerut Ckt-II and 400 kV S/C Meerut- Muzaffarpur transmission line	1.6.2006	• 4 no.s of 220 kV bays, and
Asset-h	ICT at Muzaffarnagar along with one No. 400 kV and one No. 220 kV bay	1.2.2007	• 8 no.s of 400 kV bays

(c) The tariff for 2003-04 tariff period for all the assets of stage-I was allowed vide order dated 7.9.2005 in Petition No. 8/2003. Further, the tariff for 2004-09 tariff period for all the assets of Stage-I was allowed vide order dated 31.7.2006 in Petition No. 141/2005 and order dated 6.2.2007 in I.A. No. 74/2006 in Petition No. 141/2005. Further, the tariff for 2004-09 tariff period for all the assets of Stage-II was allowed vide order dated 21.8.2008 in Petition No. 146/2007, order dated 20.7.2009 in Petition No. 57/2009 and order dated 11.3.2010 in Petition No. 263/2009.

(d) The transmission tariff for all the assets of Stage-I and Stage-II from 1.4.2009 to 31.3.2014 was allowed vide order dated 26.3.2012 in Petition No. 79/TT/2011. Further, the transmission tariff of 2009-14 tariff period was trued-up and transmission tariff for 2014-19 period was allowed vide order dated 17.12.2015 in Petition No. 446/TT/2014.

(e) The Petitioner has sought revision of transmission tariff allowed for the 2001-04 and 2004-09 tariff periods on account of change in Interest on Loan (IoL) and Interest on Working Capital (IWC) to the extent of revision in IoL



and in Maintenance Spares in terms of the judgements of the Appellate Tribunal for Electricity (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 also sought consequential revision of transmission tariff allowed for the 2009-14 tariff period, truing-up of tariff of the 2014-19 tariff period and determination of transmission tariff of the 2019-24 tariff period for the transmission asset.

(f) 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/ direction are as follows:

<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	Commission's view upheld
3(b)	O&M Expenses: Non-inclusion of incentives and ex-gratia payment to employees	Commission's view upheld
4	Cost of spares for calculation of working capital	Commission's view upheld



(g) 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 as follows:

Sr. No.	Issue	APTEL's decision/direction
I	Computation of outstanding loan at the beginning of the tariff period i.e. 1.4.2004	Commission is required to recalculate the loan outstanding as on 31.3.2004 based on loan repayment on normative basis
II	Consequence of refinance of loan	Commission to consider the issue afresh
III	Treating depreciation available as deemed repayment of loan	Commission to make a fresh computation of outstanding loan
IV	Admissibility of depreciation up to 90%	Commission to consider the issue afresh
V	Cost of Maintenance Spares	Commission to consider the issue afresh
VI	Impact of de-capitalisation of the assets on cumulative repayment of Loan	The cumulative repayment of the loan proportionate to the assets decapitalized required to be reduced. Commission to act accordingly
VII	Non-consideration of normative transit loss for coal import	Commission to consider afresh the transit losses for coal imported from coal mines other than the dedicated ones
VIII	Foreign Exchange Rate Variation (FERV)	FERV has been kept as pass through to ensure that any liability or gain, if any, arising on account of any variation in foreign exchange rates is passed on to the beneficiary as held in order dated 4.10.2006 in Appeal 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. Commission shall re-compute the interest accordingly.

(h) 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.





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

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

(k) 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 the 2014-19 tariff period in respect of concerned transmission assets.

(l) The instant petition was heard on 3.8.2021 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. Tariff 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 which 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 by the Petitioner. None of the Respondents have filed their reply in the matter.

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

6. APTEL while dealing with the issue of computation of IoL in judgment dated 22.1.2007 observed that IoL for the period from 1.4.1998 to 31.3.2001 shall be computed only on normative loan repayment as per its 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 had set aside the Commission's methodology of computation of loan on the actual repayment basis or normative repayment whichever is higher and held that the Commission is required to adopt normative debt repayment methodology for working out IoL liability for the period 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.

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

7. APTEL vide judgment dated 13.6.2007 in Appeal No. 139/2006 and others held that ACE after COD should also be considered for computation of maintenance spares. In view of the above, 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 the date of commercial operation.

### **Depreciation**

8. As regards depreciation, APTEL in its judgment dated 13.6.2007 in Appeal No. 139 of 2006 observed that depreciation is an expense and it cannot be deployed for deemed repayment of loan and accordingly directed the Commission to compute the outstanding loan afresh. In view of the above directions of APTEL, the outstanding loan allowed for the transmission asset for 2004-09 period is revised in the instant order.

9. The revision of transmission tariff allowed for 2001-04 and 2004-09 tariff periods necessitates the revision of transmission tariff allowed for 2009-14 tariff period, which is also allowed 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 13.6.2007 in Appeal No. 139 of 2006 and batch cases, in case of the Petitioner was kept pending awaiting for the outcome of the Civil Appeals filed before the Hon'ble Supreme Court. Taking into consideration the facts of the case and keeping in view the interest of the consumers, we are of the view that the beneficiaries should not be burdened with the carrying cost for the difference in the tariff allowed earlier and allowed in the instant order for 2001-04, 2004-09 and 2009-14 tariff periods. Therefore, we direct that the Petitioner will neither claim nor pay any carrying cost from or to the beneficiaries for the difference, if any, in the tariff allowed earlier and the tariff being allowed in the instant order. Further, the said difference in tariff shall be recovered/ paid over a period of six months from the date of issue of this order



10. The hearing in this matter was held on 3.8.2021 through video conference and the order was reserved. The Commission vide RoP for hearing dated 3.8.2021 directed the staff of the Commission to process the instant Petition along with Petition No. 673/TT/2020.

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

12. This order is issued considering the submissions made by the Petitioner in the petition, affidavit dated 1.7.2021 and affidavit dated 27.8.2021.

**REVISION OF TRANSMISSION CHARGES ALLOWED FOR THE 2001-04, 2004-09 AND 2009-14 TARIFF PERIODS**

**2003-04 Tariff Period**

13. The Commission had approved transmission charges for the period from COD to 31.3.2004 vide order dated 7.9.2005 in Petition No. 8/2003. The details of the transmission tariff approved by the Commission is as follows:

(₹ in lakh)

Particulars	2003-04			
	Asset-a	Asset-b	Asset-c	Asset-d
Depreciation	39.65	90.97	35.68	47.78
Return on Equity	50.12	82.88	39.73	51.26
O&M Expenses	31.86	63.72	58.53	43.90
Advance against Depreciation	4.41	65.1113	15.97	0.00
Interest on Loan	96.66	168.99	64.06	106.08
Interest on Working Capital	5.57	11.12	4.93	5.72
<b>Total</b>	<b>228.26</b>	<b>462.82</b>	<b>218.89</b>	<b>254.74</b>

14. The Petitioner has claimed the following revised transmission charges for the transmission assets from COD to 31.3.2004 period in this petition:

(₹ in lakh)

Particulars	2003-04			
	Asset-a	Asset-b	Asset-c	Asset-d
Depreciation	39.65	70.97	35.68	47.78
Return on Equity	50.12	82.88	39.73	51.26
O&M Expenses	31.86	63.72	58.53	43.90



Advance against Depreciation	4.40	65.13	15.97	0.00
Interest on Loan	96.66	168.99	64.06	106.08
Interest on Working Capital	5.58	11.14	4.94	5.72
<b>Total</b>	<b>228.27</b>	<b>462.83</b>	<b>218.91</b>	<b>254.74</b>

15. We have considered the the submissions of the Petitioner. The transmission tariff is revised in respect of transmission asset on the basis of the following:

a) The Commission had approved capital cost of ₹2932.70 lakh, ₹2534.41 lakh, ₹1013.32 lakh and ₹1989.63 lakh as on COD for Asset-a, Asset-b, Asset-c and Asset-d respectively now forming part of Stage-I Combined Assets approved vide order dated 7.9.2005 in Petition No. 8/2003.

b) Weighted Average Rate of Interest (WAROI) on actual loan adopted as per order dated 7.9.2005 in Petition No. 8/2003, and

c) Weighted Average Rate of Depreciation, rate of Interest for Working Capital and O&M Expenses as per order dated 7.9.2005 in Petition No. 8/2003.

16. The Commission based on the above information, revised the transmission charges for the transmission assets for the period from COD to 31.3.2004 are as follows:

Particulars	Asset-a	Asset-b	Asset-c	Asset-d
	2003-04 (Pro-rata for 6 months)	2003-04	2003-04	2003-04 (Pro-rata for 9 months)
Depreciation	39.59	70.97	35.68	47.78
Return on Equity	50.12	82.88	39.73	51.26
O&M Expenses	31.86	63.72	58.53	43.90
Advance against Depreciation	4.40	65.13	15.97	0.00
Interest on Loan	96.66	168.99	64.06	106.08
Interest on Working Capital	5.58	11.14	4.94	5.72
<b>Total</b>	<b>228.27</b>	<b>462.83</b>	<b>218.91</b>	<b>254.74</b>



17. The Annual Fixed Charges (AFC) allowed for 2001-04 tariff period vide order dated 7.9.2005 in Petition No. 8/2003, the revised AFC claimed in the instant petition and AFC approved in the instant order are as follows:

(₹ in lakh)

Particulars	2003-04			
	Asset-a	Asset-b	Asset-c	Asset-d
AFC allowed vide order dated 7.9.2005 in Petition No. 8/2003	228.26	462.82	218.89	254.74
AFC claimed by the Petitioner in the instant petition	228.27	462.83	218.91	254.74
AFC approved in the instant order	228.27	462.83	218.91	254.74

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

18. The Commission vide order dated 31.7.2006 in Petition No. 141/2005 and order dated 6.2.2007 in I.A. No. 74/2006 in Petition No. 141/2005 has approved the transmission charges for Asset-a, Asset-b, Asset-c, and Asset-d. Further, the tariff for 2004-09 tariff period for all the assets of Stage-II i.e. Asset-e, Asset-f, Asset-g and Asset-h was allowed vide order dated 21.8.2008 in Petition No. 146/2007, order dated 20.7.2009 in Petition No. 57/2009, and order dated 11.3.2010 in Petition No. 263/2009. The transmission charges allowed in respect of the transmission assets are as follows:

(₹ in lakh)

Asset-a					
Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	80.76	80.76	80.76	80.76	80.76
Return on Equity	93.31	93.31	93.31	93.31	93.31
O&M Expenses	69.83	72.63	75.57	78.53	81.73
Advance against Depreciation	100.02	140.58	140.58	140.58	120.37
Interest on Loan	182.45	158.04	138.84	118.23	99.00
Interest on Working Capital	12.91	13.45	13.39	13.32	12.95
<b>Total</b>	<b>539.28</b>	<b>558.77</b>	<b>542.45</b>	<b>524.73</b>	<b>488.12</b>



(₹ in lakh)

Asset-b					
Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	71.49	71.49	71.49	71.49	71.49
Return on Equity	76.90	76.90	76.90	76.90	76.90
O&M Expenses	69.83	72.63	75.57	78.53	81.73
Advance against Depreciation	107.15	124.63	124.63	124.63	104.62
Interest on Loan	153.64	130.64	113.88	95.73	78.94
Interest on Working Capital	11.73	11.88	11.84	11.79	11.44
<b>Total</b>	<b>490.74</b>	<b>488.17</b>	<b>474.31</b>	<b>459.07</b>	<b>425.12</b>

(₹ in lakh)

Asset-c					
Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	36.06	36.06	36.06	36.06	36.06
Return on Equity	37.48	37.48	37.48	37.48	37.48
O&M Expenses	112.48	117.00	121.68	126.52	131.60
Advance against Depreciation	31.71	38.33	38.33	38.33	30.73
Interest on Loan	58.23	49.51	43.17	36.28	29.92
Interest on Working Capital	6.89	7.04	7.13	7.21	7.18
<b>Total</b>	<b>282.85</b>	<b>285.42</b>	<b>283.85</b>	<b>281.88</b>	<b>272.97</b>

(₹ in lakh)

Asset-d					
Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	64.16	64.16	64.16	64.16	64.16
Return on Equity	62.27	62.27	62.27	62.27	62.27
O&M Expenses	112.48	117.00	121.68	126.52	131.60
Advance against Depreciation	3.56	76.85	76.85	76.85	69.25
Interest on Loan	136.60	124.62	111.74	98.33	85.44
Interest on Working Capital	9.73	11.05	11.08	11.12	11.05
<b>Total</b>	<b>388.80</b>	<b>455.95</b>	<b>447.78</b>	<b>439.25</b>	<b>423.77</b>

(₹ in lakh)

Asset-e				
Particulars	2005-06	2006-07	2007-08	2008-09
Depreciation	44.01	68.91	72.17	73.80
Return on Equity	61.90	96.37	100.17	102.07
O&M Expenses	78.00	121.68	126.52	131.60
Advance against Depreciation	0.00	0.00	0.00	0.00
Interest on Loan	72.19	110.82	110.38	107.43
Interest on Working Capital	6.67	10.38	10.77	11.06
<b>Total</b>	<b>262.78</b>	<b>408.16</b>	<b>420.01</b>	<b>425.97</b>

(₹ in lakh)



<b>Asset-f</b>			
<b>Particulars</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	904.66	906.48	908.30
Return on Equity	1431.37	1434.16	1437.06
O&M Expenses	106.47	110.56	115.14
Advance against Depreciation	1298.14	1299.70	1165.46
Interest on Loan	1651.52	1448.67	1254.74
Interest on Working Capital	131.27	130.16	126.99
<b>Total</b>	<b>5523.44</b>	<b>5329.74</b>	<b>5007.69</b>

(₹ in lakh)

<b>Asset-g</b>			
<b>Particulars</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	840.22	1018.48	1020.34
Return on Equity	1366.32	1655.76	1658.69
O&M Expenses	146.78	182.97	190.49
Advance against Depreciation	1447.92	1476.33	1221.34
Interest on Loan	1595.13	1705.58	1478.16
Interest on Working Capital	128.88	149.16	143.61
<b>Total</b>	<b>5525.25</b>	<b>6188.29</b>	<b>5712.64</b>

(₹ in lakh)

<b>Asset-h</b>			
<b>Particulars</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	10.09	60.56	61.67
Return on Equity	11.76	70.59	71.88
O&M Expenses	10.14	63.26	65.80
Advance against Depreciation	2.66	0.00	0.00
Interest on Loan	17.04	98.94	95.44
Interest on Working Capital	1.28	7.42	7.57
<b>Total</b>	<b>52.97</b>	<b>300.77</b>	<b>302.36</b>

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

(₹ in lakh)

<b>Asset-a</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	80.76	80.76	80.76	80.76	80.76
Return on Equity	93.31	93.31	93.31	93.31	93.31
O&M Expenses	69.83	72.63	75.57	78.53	81.73
Advance against Depreciation	100.01	140.57	140.57	140.57	120.37
Interest on Loan	182.45	158.04	138.84	118.23	99.00
Interest on Working Capital	13.04	13.59	13.54	13.48	13.12
<b>Total</b>	<b>539.40</b>	<b>558.91</b>	<b>542.60</b>	<b>524.89</b>	<b>488.29</b>

(₹ in lakh)





<b>Asset-b</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	71.49	71.49	71.49	71.49	71.49
Return on Equity	76.90	76.90	76.90	76.90	76.90
O&M Expenses	69.83	72.63	75.57	78.53	81.73
Advance against Depreciation	107.15	124.62	124.62	124.62	104.61
Interest on Loan	153.64	130.64	113.88	95.73	78.94
Interest on Working Capital	11.77	11.92	11.88	11.83	11.48
<b>Total</b>	<b>490.77</b>	<b>488.20</b>	<b>474.35</b>	<b>459.11</b>	<b>425.15</b>

(₹ in lakh)

<b>Asset-c</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	36.06	36.06	36.06	36.06	36.06
Return on Equity	37.48	37.48	37.48	37.48	37.48
O&M Expenses	112.48	117.00	121.68	126.52	131.60
Advance against Depreciation	31.70	38.33	38.33	38.33	30.72
Interest on Loan	58.23	49.51	43.17	36.28	29.92
Interest on Working Capital	6.92	7.07	7.15	7.23	7.20
<b>Total</b>	<b>282.87</b>	<b>285.45</b>	<b>283.86</b>	<b>281.91</b>	<b>272.99</b>

(₹ in lakh)

<b>Asset-d</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	64.16	64.16	64.16	64.16	64.16
Return on Equity	62.27	62.27	62.27	62.27	62.27
O&M Expenses	112.48	117.00	121.68	126.52	131.60
Advance against Depreciation	3.56	76.85	76.85	76.85	69.25
Interest on Loan	136.60	124.62	111.74	98.33	85.44
Interest on Working Capital	9.78	11.10	11.14	11.18	11.12
<b>Total</b>	<b>388.85</b>	<b>456.00</b>	<b>447.85</b>	<b>439.32</b>	<b>423.84</b>

(₹ in lakh)

<b>Asset-e</b>				
<b>Particulars</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	44.01	68.91	72.17	73.80
Return on Equity	61.90	96.37	100.17	102.07
O&M Expenses	78.00	121.68	126.52	131.60
Advance against Depreciation	0.00	0.00	0.00	0.00
Interest on Loan	72.42	112.19	113.10	111.68
Interest on Working Capital	6.71	10.59	11.10	11.49
<b>Total</b>	<b>263.04</b>	<b>409.73</b>	<b>423.06</b>	<b>430.64</b>

(₹ in lakh)



<b>Asset-f</b>			
<b>Particulars</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	904.66	906.48	908.30
Return on Equity	1431.37	1434.16	1437.06
O&M Expenses	106.47	110.56	115.14
Advance against Depreciation	1297.89	1299.70	1165.45
Interest on Loan	1651.02	1449.14	1255.29
Interest on Working Capital	131.28	130.26	127.17
<b>Total</b>	<b>5522.69</b>	<b>5330.30</b>	<b>5008.41</b>

(₹ in lakh)

<b>Asset-g</b>			
<b>Particulars</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	840.22	1018.48	1020.34
Return on Equity	1366.32	1655.76	1658.69
O&M Expenses	146.78	182.97	190.49
Advance against Depreciation	1447.77	1476.35	1221.36
Interest on Loan	1595.14	1705.99	1478.25
Interest on Working Capital	129.17	150.36	144.95
<b>Total</b>	<b>5525.40</b>	<b>6189.90</b>	<b>5714.09</b>

(₹ in lakh)

<b>Asset-h</b>			
<b>Particuloars</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	10.09	60.56	61.67
Return on Equity	11.76	70.59	71.88
O&M Expenses	10.14	63.26	65.80
Advance against Depreciation	2.66	0.00	0.00
Interest on Loan	17.04	100.93	101.37
Interest on Working Capital	1.28	7.54	7.80
<b>Total</b>	<b>52.97</b>	<b>302.88</b>	<b>308.52</b>

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

- a) The admitted capital cost and ACE for Asset-a, Asset-b, Asset-c and Asset-d respectively as on 1.4.2004 as approved by the Commission vide order dated 31.7.2006 in Petition No. 141/2005 and order dated 6.2.2007 in I.A. No. 74/2006 in Petition No. 141/2005. The admitted capital cost and ACE for Asset-e, Asset-f, Asset-g and Asset-h respectively as on COD has been approved by the Commission vide order dated 21.8.2008 in Petition No. 146/2007, order dated 20.7.2009 in Petition No. 57/2009, and order dated 11.3.2010 in Petition No. 263/2009.



b) Weighted Average Rate of Interest (WAROI) on actual loan adopted as per order dated 31.7.2006 in Petition No. 141/2005 and order dated 6.2.2007 in I.A. No. 74/2006 in Petition No. 141/2005 and vide order dated 21.8.2008 in Petition No. 146/2007, order dated 20.7.2009 in Petition No. 57/2009, and order dated 11.3.2010 in Petition No. 263/2009; and

c) Weighted Average Rate of Depreciation, Rate of Interest for Working Capital and O&M Expenses as per order dated 31.7.2006 in Petition No. 141/2005 and order dated 6.2.2007 in I.A. No. 74/2006 in Petition No. 141/2005 and vide order dated 21.8.2008 in Petition No. 146/2007, order dated 20.7.2009 in Petition No. 57/2009, and order dated 11.3.2010 in Petition No. 263/2009.

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

(₹ in lakh)

Asset-a					
Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	80.76	80.76	80.76	80.76	80.76
Return on Equity	93.31	93.31	93.31	93.31	93.31
O&M Expenses	69.83	72.63	75.57	78.53	81.73
Advance against Depreciation	100.00	140.55	140.55	140.55	120.35
Interest on Loan	182.43	158.03	138.83	118.22	98.99
Interest on Working Capital	12.95	13.49	13.44	13.37	13.00
<b>Total</b>	<b>539.28</b>	<b>558.77</b>	<b>542.46</b>	<b>524.75</b>	<b>488.14</b>

(₹ in lakh)

Asset-b					
Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	71.49	71.49	71.49	71.49	71.49
Return on Equity	76.90	76.90	76.90	76.90	76.90
O&M Expenses	69.83	72.63	75.57	78.53	81.73
Advance against Depreciation	107.01	124.47	124.47	124.47	104.47
Interest on Loan	153.51	130.53	113.79	95.65	78.88
Interest on Working Capital	11.76	11.91	11.88	11.83	11.48
<b>Total</b>	<b>490.51</b>	<b>487.94</b>	<b>474.10</b>	<b>458.88</b>	<b>424.95</b>

(₹ in lakh)

Asset-c					
Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	36.06	36.06	36.06	36.06	36.06
Return on Equity	37.48	37.48	37.48	37.48	37.48



O&M Expenses	112.48	117.00	121.68	126.52	131.60
Advance against Depreciation	31.65	38.27	38.27	38.27	30.67
Interest on Loan	58.19	49.48	43.13	36.26	29.90
Interest on Working Capital	6.91	7.06	7.15	7.23	7.20
<b>Total</b>	<b>282.77</b>	<b>285.35</b>	<b>283.77</b>	<b>281.82</b>	<b>272.91</b>

(₹ in lakh)

Asset-d					
Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	64.16	64.16	64.16	64.16	64.16
Return on Equity	62.27	62.27	62.27	62.27	62.27
O&M Expenses	112.48	117.00	121.68	126.52	131.60
Advance against Depreciation	3.55	76.84	76.84	76.84	69.24
Interest on Loan	136.59	124.61	111.73	98.32	85.43
Interest on Working Capital	9.78	11.10	11.14	11.18	11.12
<b>Total</b>	<b>388.83</b>	<b>455.98</b>	<b>447.82</b>	<b>439.29</b>	<b>423.81</b>

(₹ in lakh)

Asset-e				
Particulars	2005-06 (Pro-rata for 8 months)	2006-07	2007-08	2008-09
Depreciation	44.01	68.91	72.17	73.80
Return on Equity	61.90	96.37	100.17	102.07
O&M Expenses	78	121.68	126.52	131.6
Advance against Depreciation	0.00	0.00	0.00	0.00
Interest on Loan	72.44	112.23	113.10	111.68
Interest on Working Capital	6.71	10.54	11.05	11.44
<b>Total</b>	<b>263.06</b>	<b>409.73</b>	<b>423.02</b>	<b>430.60</b>

(₹ in lakh)

Asset-f			
Particulars	2006-07	2007-08	2008-09
Depreciation	904.66	906.48	908.28
Return on Equity	1431.37	1434.16	1437.07
O&M Expenses	106.47	110.56	115.14
Advance against Depreciation	1297.89	1299.70	1165.47
Interest on Loan	1651.02	1449.14	1255.29
Interest on Working Capital	131.28	130.26	127.17
<b>Total</b>	<b>5522.69</b>	<b>5330.30</b>	<b>5008.41</b>

(₹ in lakh)

Asset-g			
Particulars	2006-07 (Pro-rata for 10 months)	2007-08	2008-09
Depreciation	840.22	1018.48	1020.33
Return on Equity	1366.32	1655.76	1658.69
O&M Expenses	146.78	182.97	190.49
Advance against Depreciation	1447.77	1476.35	1221.37
Interest on Loan	1595.14	1705.63	1478.10
Interest on Working Capital	129.17	149.95	144.52



<b>Total</b>	<b>5525.40</b>	<b>6189.14</b>	<b>5713.50</b>
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(₹ in lakh)

<b>Asset-h</b>			
<b>Particulars</b>	<b>2006-07 (Pro-rata for 2 months)</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	10.09	60.56	61.67
Return on Equity	11.76	70.59	71.88
O&M Expenses	10.14	63.26	65.80
Advance against Depreciation	2.66	0.00	0.00
Interest on Loan	17.04	100.93	101.37
Interest on Working Capital	1.28	7.45	7.71
<b>Total</b>	<b>52.97</b>	<b>302.79</b>	<b>308.43</b>

22. The Annual Fixed Charges (AFC) allowed vide order dated 31.7.2006 in Petition No. 141/2005 for the years 2004-05 to 2008-09 for Stage-I Combined Assets and the AFC for Stage-II Combined Assets was allowed vide order dated 11.3.2010 in Petition No. 263/2009, order dated 21.8.2008 in Petition No. 146/2007, and order dated 20.7.2009 in Petition No. 57/2009, the revised AFC claimed in the instant petition and AFC allowed in the instant order are as follows:

(₹ in lakh)

<b>Asset-a</b>					
<b>Particulars</b>	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
AFC approved vide order dated 31.7.2006 in Petition No. 141/2005 and order dated 6.2.2007 in I.A. No. 74/2006 in Petition No. 141/2005	539.28	558.77	542.45	524.73	488.12
AFC claimed by the Petitioner in the instant petition	539.40	558.91	542.60	524.89	488.29
AFC allowed in the instant order	539.28	558.77	542.46	524.75	488.14

(₹ in lakh)

<b>Asset-b</b>					
<b>Particulars</b>	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
AFC approved vide order dated 31.7.2006 in Petition No. 141/2005 and order dated 6.2.2007 in I.A. No. 74/2006 in Petition No. 141/2005	490.74	488.17	474.31	459.07	425.12
AFC claimed by the Petitioner in the instant petition	490.77	488.20	474.35	459.11	425.15
AFC allowed in the instant order	490.51	487.94	474.10	458.88	424.95

(₹ in lakh)



<b>Asset-c</b>					
<b>Particulars</b>	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
AFC approved vide order dated 31.7.2006 in Petition No. 141/2005 and order dated 6.2.2007 in I.A. No. 74/2006 in Petition No. 141/2005	282.85	285.42	283.85	281.88	272.97
AFC claimed by the Petitioner in the instant petition	282.87	285.45	283.86	281.91	272.99
AFC allowed in the instant order	282.77	285.35	283.77	281.82	272.91

(₹ in lakh)

<b>Asset-d</b>					
<b>Particulars</b>	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
AFC approved vide order dated 31.7.2006 in Petition No. 141/2005 and order dated 6.2.2007 in I.A. No. 74/2006 in Petition No. 141/2005	388.80	455.95	447.78	439.25	423.77
AFC claimed by the Petitioner in the instant petition	388.85	456.00	447.85	439.32	423.84
AFC allowed in the instant order	388.83	455.98	447.82	439.29	423.81

(₹ in lakh)

<b>Asset-e</b>					
<b>Particulars</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>	
AFC approved vide order dated 21.8.2008 in Petition No. 146/2007, order dated 20.7.2009 in Petition No. 57/2009, and order dated 11.3.2010 in Petition No. 263/2009	262.78	408.16	420.01	425.97	
AFC claimed by the Petitioner in the instant petition	263.04	409.73	423.06	430.64	
AFC allowed in the instant order	263.06	409.73	423.02	430.60	

(₹ in lakh)

<b>Asset-f</b>			
<b>Particulars</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
AFC approved vide order dated 21.8.2008 in Petition No. 146/2007, order dated 20.7.2009 in Petition No. 57/2009, and order dated 11.3.2010 in Petition No. 263/2009	5523.44	5329.74	5007.69
AFC claimed by the Petitioner in the instant petition	5522.69	5330.30	5008.41
AFC allowed in the instant order	5522.69	5330.30	5008.41

(₹ in lakh)

<b>Asset-g</b>			
<b>Particulars</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
AFC approved vide order dated 21.8.2008 in Petition No. 146/2007, order dated 20.7.2009 in Petition No. 57/2009, and order dated 11.3.2010 in Petition No. 263/2009	5525.25	6188.29	5712.64
AFC claimed by the Petitioner in the instant petition	5525.40	6189.90	5714.09
AFC allowed in the instant order	5525.40	6189.14	5713.50



(₹ in lakh)

Asset-h			
Particulars	2006-07	2007-08	2008-09
AFC approved vide order dated 21.8.2008 in Petition No. 146/2007, order dated 20.7.2009 in Petition No. 57/2009, and order dated 11.3.2010 in Petition No. 263/2009	52.97	300.77	302.37
AFC claimed by the Petitioner in the instant petition	52.97	302.88	308.52
AFC allowed in the instant order	<b>52.97</b>	<b>302.79</b>	<b>308.43</b>

**2009-14 Tariff Period**

23. The Commission vide its order dated 26.3.2012 in Petition No. 79/TT/2011 had approved the tariff for the transmission assets for the 2009-14 period and vide order dated 17.12.2015 in Petition No. 446/TT/2014 had trued up the tariff allowed for the 2009-14 period that was earlier allowed in order dated 26.3.2012 and the same is as follows:

(₹ in lakh)

Stage-I Combined Assets	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	430.40	430.40	430.40	430.40	430.40
Interest on Loan	250.62	209.73	174.57	133.02	91.22
Return on Equity	360.10	373.29	373.65	373.65	378.15
Interest on Working Capital	50.31	51.37	52.38	53.34	54.50
O&M Expenses	572.02	604.77	639.39	675.92	714.56
<b>Total</b>	<b>1663.44</b>	<b>1669.56</b>	<b>1670.38</b>	<b>1666.33</b>	<b>1668.81</b>

(₹ in lakh)

Stage-II Combined Assets	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	4106.63	4119.45	4125.31	4126.50	4130.25
Interest on Loan	2415.38	2048.68	1710.23	1327.94	948.60
Return on Equity	4373.11	4547.43	4558.35	4559.66	4618.66
Interest on Working Capital	265.98	264.47	260.11	254.69	250.72
O&M Expenses	777.72	822.32	869.21	919.16	971.60
<b>Total</b>	<b>11938.82</b>	<b>11802.34</b>	<b>11523.20</b>	<b>11187.96</b>	<b>10919.83</b>

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

(₹ in lakh)

Stage-I Combined Assets	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	430.40	430.40	430.40	430.40	430.40
Interest on Loan	250.62	209.73	174.57	133.02	91.21
Return on Equity	360.10	373.29	373.65	373.65	378.15
Interest on Working Capital	50.31	51.37	52.38	53.34	54.50
O&M Expenses	572.02	604.77	639.39	675.92	714.56
<b>Total</b>	<b>1663.45</b>	<b>1669.56</b>	<b>1670.38</b>	<b>1666.33</b>	<b>1668.82</b>



	(₹ in lakh)				
<b>Stage-II Combined Assets</b>	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
Depreciation	4106.63	4119.45	4125.31	4126.50	4130.25
Interest on Loan	2428.82	2061.96	1723.52	1340.91	961.01
Return on Equity	4373.11	4547.43	4558.35	4559.66	4618.66
Interest on Working Capital	266.26	264.75	260.39	254.96	250.98
O&M Expenses	777.72	822.32	869.21	919.16	971.60
<b>Total</b>	<b>11952.55</b>	<b>11815.90</b>	<b>11536.77</b>	<b>11201.20</b>	<b>10932.49</b>

25. We have considered the Petitioner's claim. The tariff is allowed for Stage-I

Combined Assets on the basis of the following:

- Admitted capital cost of ₹8532.64 lakh for as on 1.4.2009;
- No ACE for 2009-14 period;
- Weighted Average Rate of Interest on actual loan derived/ adopted from Order dated 17.12.2015 in Petition No. 446/TT/2014; and
- Weighted Average Rate of Depreciation as per order dated 17.12.2015 in Petition No. 446/TT/2014.

26. The tariff is allowed for the Stage-II Combined Assets on the basis of the following:

- Admitted capital cost of ₹79246.08 lakh for as on 1.4.2009;
- Admitted ACE for 2009-14 tariff period approved by the Commission vide order dated 17.12.2015 in Petition No. 446/TT/2014;
- Weighted Average Rate of Interest on actual loan derived/adopted from Order dated 17.12.2015 in Petition No. 446/TT/2014; and
- Weighted Average Rate of Depreciation as per order dated 17.12.2015 in Petition No. 446/TT/2014.

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

	(₹ in lakh)				
<b>Stage-I Combined Assets</b>	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
Depreciation	430.40	430.40	430.40	430.40	430.40
Interest on Loan	250.52	209.64	174.47	132.93	91.13
Return on equity	360.10	373.29	373.65	373.65	378.15
Interest on Working Capital	50.31	51.37	52.38	53.34	54.49
O & M Expenses	572.02	604.77	639.39	675.92	714.56
<b>Total</b>	<b>1663.34</b>	<b>1669.46</b>	<b>1670.29</b>	<b>1666.24</b>	<b>1668.73</b>





(₹ in lakh)					
Stage-II Combined Assets	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	4106.63	4119.45	4125.31	4126.50	4130.25
Interest on Loan	2428.82	2061.96	1723.52	1340.91	961.01
Return on equity	4373.11	4547.43	4558.35	4559.66	4618.66
Interest on Working Capital	266.26	264.75	260.39	254.96	250.98
O & M Expenses	777.72	822.32	869.21	919.16	971.60
<b>Total</b>	<b>11952.55</b>	<b>11815.90</b>	<b>11536.77</b>	<b>11201.20</b>	<b>10932.49</b>

28. The Annual Fixed Charges (AFC) allowed for 2009-14 tariff period vide order dated 17.12.2015 in Petition No. 446/TT/2014, the revised AFC claimed in the instant petition and AFC allowed in the instant order are as follows:

(₹ in lakh)					
Stage-I Combined Assets	2009-10	2010-11	2011-12	2012-13	2013-14
AFC approved vide order dated 17.12.2015 in Petition No. 446/TT/2014	1663.44	1669.56	1670.38	1666.33	1668.81
AFC claimed by the Petitioner in the instant petition	1663.45	1669.56	1670.38	1666.33	1668.82
AFC allowed in the instant order	1663.34	1669.46	1670.29	1666.24	1668.73

(₹ in lakh)					
Stage-II Combined Assets	2009-10	2010-11	2011-12	2012-13	2013-14
AFC approved vide order dated 17.12.2015 in Petition No. 446/TT/2014	11938.82	11802.34	11523.20	11187.96	10919.83
AFC claimed by the Petitioner in the instant petition	11952.55	11815.90	11536.77	11201.20	10932.49
AFC allowed in the instant order	11952.55	11815.90	11536.77	11201.20	10932.49

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

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

(₹ in lakh)					
Stage-I Combined Assets					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	430.40	430.40	68.46	68.45	68.46
Interest on Loan	54.65	22.00	5.80	2.23	0.77
Return on equity	378.44	380.17	379.98	379.98	381.00
Interest on Working Capital	56.19	56.69	49.23	50.43	51.75
O&M Expenses	657.39	679.22	701.78	725.06	749.11
<b>Total</b>	<b>1577.07</b>	<b>1568.48</b>	<b>1205.25</b>	<b>1226.15</b>	<b>1251.09</b>



(₹ in lakh)

Stage-II Combined Assets					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	4133.30	4133.30	4133.30	4133.30	4133.30
Interest on Loan	608.60	275.63	60.41	0.00	0.00
Return on equity	4625.60	4646.81	4644.45	4644.45	4656.95
Interest on Working Capital	264.80	259.28	255.94	256.30	258.38
O&M Expenses	890.25	920.14	950.41	982.14	1014.63
<b>Total</b>	<b>10522.55</b>	<b>10235.16</b>	<b>10044.51</b>	<b>10016.19</b>	<b>10063.26</b>

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

(₹ in lakh)

Stage-I Combined Assets					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	54.78	56.60	58.48	60.42	62.43
Maintenance Spares	98.61	101.88	105.27	108.76	112.37
Receivables	262.85	261.41	200.88	204.36	208.52
<b>Total Working Capital</b>	<b>416.24</b>	<b>419.89</b>	<b>364.63</b>	<b>373.54</b>	<b>383.32</b>
Rate of Interest on Working Capital (%)	13.50	13.50	13.50	13.50	13.50
<b>Interest on Working Capital</b>	<b>56.19</b>	<b>56.69</b>	<b>49.23</b>	<b>50.43</b>	<b>51.75</b>

(₹ in lakh)

Stage-II Combined Assets					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	74.19	76.68	79.20	81.85	84.55
Maintenance Spares	133.54	138.02	142.56	147.32	152.19
Receivables	1753.76	1705.86	1674.09	1669.37	1677.21
<b>Total Working Capital</b>	<b>1961.49</b>	<b>1920.56</b>	<b>1895.85</b>	<b>1898.54</b>	<b>1913.95</b>
Rate of Interest on Working Capital (%)	13.50	13.50	13.50	13.50	13.50
<b>Interest on Working Capital</b>	<b>264.80</b>	<b>259.28</b>	<b>255.94</b>	<b>256.30</b>	<b>258.38</b>

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

31. The capital cost of the transmission asset has been calculated in accordance with Regulations 9(3) of the 2014 Tariff Regulations. The Commission vide order dated 17.12.2015 in Petition No. 446/TT/2014, had approved the transmission tariff for the 2014-19 period based on admitted capital cost of ₹8532.64 lakh as on 31.3.2014 for Stage-I Combined Assets and admitted capital cost of ₹79893.80 lakh



as on 31.3.2014 and ACE of ₹25.33 lakh for Stage-II Combined Assets respectively. Therefore, the admitted capital cost of ₹8532.64.00 lakh and ₹79893.80 lakh as on 31.3.2014 for Stage-I Combined Assets and Stage-II Combined Assets has been considered for working out the trued-up tariff for 2014-19 tariff period.

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

32. The Petitioner has not claimed any ACE during the 2014-19 period.

33. We have considered the submissions of the Petitioner. The capital cost considered for truing up of tariff for the 2014-19 tariff period is as follows:

(₹ in lakh)			
Particulars	Capital Cost as in 1.4.2014	ACE during 2014-19 period	Capital Cost as in 31.3.2019
Stage-I Combined Assets	8532.64	0.00	8632.64
Stage-II Combined Assets	79893.80	0.00	79893.80

### **Debt-Equity Ratio**

34. As per Regulation 19(3) of the 2014 Tariff Regulations, the debt-equity ratio allowed by the Commission for determination of tariff for the period ending on 31.3.2014 shall be considered. Accordingly, the debt-equity ratio admitted by the Commission vide order dated 17.12.2015 in Petition No. 446/TT/2014 has been considered. The details of the debt-equity ratio of the transmission asset as on 1.4.2014 and as on 31.3.2019 are as follows:

Stage-I Combined Assets	Capital cost as on 1.4.2014 (₹ in lakh)	(in %)	Total cost as on 31.3.2019 (₹ in lakh)	(in %)
Debt	6604.30	77.40	6604.30	77.40
Equity	1928.34	22.60	1928.34	22.60
<b>Total</b>	<b>8532.64</b>	<b>100.00</b>	<b>8532.64</b>	<b>100.00</b>

Stage-II Combined Assets	Capital cost as on 1.4.2014 (₹ in lakh)	(in %)	Total cost as on 31.3.2019 (₹ in lakh)	(in %)
Debt	56323.87	70.50	56323.87	70.50



Equity	23569.93	29.50	23569.93	29.50
<b>Total</b>	<b>79893.80</b>	<b>100.00</b>	<b>79893.80</b>	<b>100.00</b>

### **Depreciation**

35. The depreciation has been allowed 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 the 2014-19 tariff period. The Gross Block during the 2014-19 tariff period with regard to the stage-I and II transmission asset has been depreciated at Weighted Average Rate of Depreciation (WAROD) and working of WAROD is attached as Annexure-I and Annexure-II. WAROD has been worked out after taking into account the depreciation rates of Stage-I and Stage-II assets as prescribed in the 2014 Tariff Regulations. The Stage-I Combined Assets have completed 12 years of life before 31.3.2016 and, therefore, the remaining depreciable value of ₹1233.36 lakh has been spread across the balance useful life of 18 years. The depreciation allowed during the 2014-19 period for the transmission asset as follows:

(₹ in lakh)

<b>Stage-I Combined Assets</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	8532.64	8532.64	8532.64	8532.64	8532.64
Additional Capitalisation	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	8532.64	8532.64	8532.64	8532.64	8532.64
Average Gross Block	8532.64	8532.64	8532.64	8532.64	8532.64
Weighted average Rate of Depreciation (WAROD) (in %)	5.04	5.04	0.80	0.80	0.80
Elapsed useful life (at the beginning of the year) (Year)	10.00	11.00	12.00	13.00	14.00
Balance useful life (at the beginning of the year) (Year)	20.00	19.00	18.00	17.00	16.00
Aggregate Depreciable Value	7495.40	7495.40	7495.40	7495.40	7495.40
<b>Depreciation during the year</b>	<b>430.40</b>	<b>430.40</b>	<b>68.52</b>	<b>68.52</b>	<b>68.52</b>
Cumulative Depreciation at the end of the year	5831.65	6262.04	6330.56	6399.08	6467.60
Remaining Aggregate Depreciable Value at the end of the year	1663.75	1233.36	1164.84	1096.32	1027.80



(₹ in lakh)

Stage-II Combined Assets					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	79893.80	79893.80	79893.80	79893.80	79893.80
Additional Capitalisation	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	79893.80	79893.80	79893.80	79893.80	79893.80
Average Gross Block	79893.80	79893.80	79893.80	79893.80	79893.80
Weighted average Rate of Depreciation (WAROD) (in %)	5.17	5.17	5.17	5.17	5.17
Elapsed useful life (at the beginning of the year) (Year)	7.00	8.00	9.00	10.00	11.00
Balance useful life (at the beginning of the year) (Year)	26.00	25.00	24.00	23.00	22.00
Aggregate Depreciable Value	70657.85	70657.85	70657.85	70657.85	70657.85
<b>Depreciation during the year</b>	<b>4133.30</b>	<b>4133.30</b>	<b>4133.30</b>	<b>4133.30</b>	<b>4133.30</b>
Cumulative Depreciation at the end of the year	38642.31	42775.61	46908.91	51042.21	55175.51
Remaining Aggregate Depreciable Value at the end of the year	32015.54	27882.24	23748.94	19615.63	15482.33

36. Accordingly, the depreciation approved vide order dated 17.12.2015 in Petition No. 446/TT/2014, depreciation claimed in the instant petition and trued up depreciation allowed in respect of the instant asset are shown as follows:

(₹ in lakh)

Stage-I Combined Assets					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation approved vide order dated 17.12.2015 in Petition No. 446/TT/2014	430.40	430.40	68.49	68.49	68.49
Depreciation claimed by the Petitioner in the instant petition	430.40	430.40	68.46	68.45	68.46
The trued-up Depreciation allowed in the instant order	430.40	430.40	68.52	68.52	68.52

(₹ in lakh)

Stage-II Combined Assets					
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation approved vide order dated 17.12.2015 in Petition No. 446/TT/2014	4133.97	4134.64	4134.64	4134.64	4134.64
Depreciation claimed by the Petitioner in the instant petition	4133.30	4133.30	4133.30	4133.30	4133.30
The trued-up Depreciation allowed in the instant order	4133.30	4133.30	4133.30	4133.30	4133.30



### **Interest on Loan (“IoL”)**

37. 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 the 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 the 2014-19 period, if any, during the truing-up of tariff.

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

39. The details of the trued-up IoL allowed for the transmission asset are as follows:

(₹ in lakh)

Stage-I Combined Assets					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	6604.30	6604.30	6604.30	6604.30	6604.30
Cumulative Repayments up to Previous Year	5569.69	6000.09	6430.48	6499.00	6567.52
Net Loan-Opening	1034.61	604.21	173.82	105.30	36.78
Addition due to ACE	0.00	0.00	0.00	0.00	0.00
Repayment during the year	430.40	430.40	68.52	68.52	36.78
Net Loan-Closing	604.21	173.82	105.30	36.78	0.00
Average Loan	819.41	389.02	139.56	71.04	18.39
Weighted Average Rate of Interest on Loan (in %)	6.66	5.64	4.12	3.09	4.04
<b>Interest on Loan</b>	<b>54.57</b>	<b>21.94</b>	<b>5.75</b>	<b>2.19</b>	<b>0.74</b>

(₹ in lakh)

Stage-II Combined Assets					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	56323.87	56323.87	56323.87	56323.87	56323.87
Cumulative Repayments up to Previous Year	46190.52	50323.82	54457.12	56323.87	56323.87
Net Loan-Opening	10133.35	6000.05	1866.75	0.00	0.00
Addition due to ACE	0.00	0.00	0.00	0.00	0.00
Repayment during the year	4133.30	4133.30	1866.75	0.00	0.00
Net Loan-Closing	6000.05	1866.75	0.00	0.00	0.00



<b>Stage-II Combined Assets</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Average Loan	8066.70	3933.40	933.37	0.00	0.00
Weighted Average Rate of Interest on Loan (in %)	7.54	7.01	6.47	6.28	6.59
<b>Interest on Loan</b>	<b>608.60</b>	<b>275.63</b>	<b>60.41</b>	<b>0.00</b>	<b>0.00</b>

40. Accordingly, IoL approved in the order dated 17.12.2015 in Petition No. 446/TT/2014, claimed by the Petitioner in the instant petition and trued up in the instant order are as follows:

(₹ in lakh)

<b>Stage-I Combined Assets</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
IOL approved vide order dated 17.12.2015 in Petition No. 446/TT/2014	54.67	21.66	5.03	1.40	0.37
IOL claimed by the Petitioner in the instant petition	54.65	22.00	5.80	2.23	0.77
The trued-up IOL allowed in the instant order	54.57	21.94	5.75	2.19	0.74

(₹ in lakh)

<b>Stage-II Combined Assets</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
IOL approved vide order dated 17.12.2015 in Petition No. 446/TT/2014	597.42	264.06	53.66	0.00	0.00
IOL claimed by the Petitioner in the instant petition	608.60	275.63	60.41	0.00	0.00
The trued-up IOL allowed in the instant order	608.60	275.63	60.41	0.00	0.00

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

41. The Petitioner is entitled to RoE for the instant asset in terms of Regulation 24 and Regulation 25 of the 2014 Tariff Regulations. The Petitioner has submitted that they are liable to pay income tax at MAT rates and has claimed following effective tax rates for the 2014-19 tariff period:

<b>Year</b>	<b>Claimed effective tax rate (in %)</b>	<b>Grossed up RoE (in %) [(Base Rate)/(1-t)]</b>
2014-15	21.018	19.624
2015-16	21.382	19.716
2016-17	21.338	19.705
2017-18	21.337	19.704



Year	Claimed effective tax rate (in %)	Grossed up RoE (in %) [(Base Rate)/(1-t)]
2018-19	21.549	19.758

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

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

43. The same MAT rates as considered in order dated 27.4.2020 in Petition No. 274/TT/2019 are considered for the purpose of grossing up of rate of RoE for trueing up of tariff of the 2014-19 tariff period in terms of the provisions of the 2014 Tariff Regulations.

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

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

(₹ in lakh)

Stage-I Combined Assets					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	1928.34	1928.34	1928.34	1928.34	1928.34
Addition due to ACE	0.00	0.00	0.00	0.00	0.00
Closing Equity	1928.34	1928.34	1928.34	1928.34	1928.34
Average Equity	1928.34	1928.34	1928.34	1928.34	1928.34
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
Tax Rate applicable (in %)	20.961	21.342	21.342	21.342	21.549
Applicable RoE Rate (in %)	19.610	19.705	19.705	19.705	19.758
<b>Return on Equity for the year</b>	<b>378.15</b>	<b>379.98</b>	<b>379.98</b>	<b>379.98</b>	<b>381.00</b>





(₹ in lakh)

Stage-II Combined Assets					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	23569.93	23569.93	23569.93	23569.93	23569.93
Addition due to ACE	0.00	0.00	0.00	0.00	0.00
Closing Equity	23569.93	23569.93	23569.93	23569.93	23569.93
Average Equity	23569.93	23569.93	23569.93	23569.93	23569.93
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
Tax Rate applicable (in %)	20.961	21.342	21.342	21.342	21.549
Applicable RoE Rate (in %)	19.610	19.705	19.705	19.705	19.758
<b>Return on Equity for the year</b>	<b>4622.06</b>	<b>4644.45</b>	<b>4644.45</b>	<b>4644.45</b>	<b>4656.95</b>

45. Accordingly, the RoE approved vide order dated 17.12.2015 in Petition No. 446/TT/2014, RoE claimed in the instant petition and trued up RoE allowed in respect of the transmission asset are as follows:

(₹ in lakh)

Stage-I Combined Assets					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
RoE approved vide order dated 17.12.2015 in Petition No. 446/TT/2014	378.15	378.15	378.15	378.15	378.15
RoE claimed by the Petitioner in the instant petition	378.44	380.17	379.98	379.98	381.00
The trued-up RoE allowed in the instant order	378.15	379.98	379.98	379.98	381.00

(₹ in lakh)

Stage-II Combined Assets					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
RoE approved vide order dated 17.12.2015 in Petition No. 446/TT/2014	4622.81	4623.55	4623.55	4623.55	4623.55
RoE claimed by the Petitioner in the instant petition	4625.60	4646.81	4644.45	4644.45	4656.95
The trued-up RoE allowed in the instant order	4622.06	4644.45	4644.45	4644.45	4656.95

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

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



<b>Stage-I Combined Assets</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Sub-station Bays (Number)</b>					
400 kV	6 Numbers				
220 kV	6 Numbers				
<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>615.06</b>	<b>635.46</b>	<b>656.58</b>	<b>678.36</b>	<b>700.86</b>
<b>AC Lines</b>					
D/C Twin/Triple Conductor	59.868 km				
<b>Norm (₹ lakh/km)</b>	0.71	0.73	0.76	0.78	0.81
<b>Total Transmission line O&amp;M Expenses (₹ in lakh)</b>	<b>42.33</b>	<b>43.76</b>	<b>45.20</b>	<b>46.70</b>	<b>48.25</b>
<b>Total O&amp;M Expenses (₹ in lakh)</b>	<b>657.39</b>	<b>679.22</b>	<b>701.78</b>	<b>725.06</b>	<b>749.11</b>
<b>Stage-II Combined Assets</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Sub-station Bays (Number)</b>					
400 kV	8 Numbers				
220 kV	4 Numbers				
<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>651.24</b>	<b>672.84</b>	<b>695.20</b>	<b>718.28</b>	<b>742.08</b>
<b>AC Lines</b>					
S/C (Bundle Conductor- 4 sub-c)	369.489 km				
S/C (Twin/Triple Conductor)	37.387 km				
<b>Norm (₹ lakh/km)</b>	0.61	0.63	0.65	0.67	0.69
<b>Norm (₹ lakh/km)</b>	0.40	0.42	0.43	0.45	0.46
<b>Total Transmission line O&amp;M Expenses (₹ in lakh)</b>	<b>239.01</b>	<b>247.30</b>	<b>255.21</b>	<b>263.86</b>	<b>272.55</b>
<b>Total O&amp;M Expenses (₹ in lakh)</b>	<b>890.25</b>	<b>920.14</b>	<b>950.41</b>	<b>982.14</b>	<b>1014.63</b>

47. Accordingly, the O&M Expenses approved vide order dated 17.12.2015 in Petition No. 446/TT/2014, O&M Expenses claimed in the instant petition and trued up O&M Expenses allowed in respect of the transmission asset are shown in the table as follows:

<b>Stage-I Combined Assets</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Total O&amp;M Expenses approved vide order dated 17.12.2015 in Petition No.</b>	<b>657.39</b>	<b>679.22</b>	<b>701.78</b>	<b>725.06</b>	<b>749.11</b>



<b>Stage-I Combined Assets</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
446/TT/2014					
<b>Total O&amp;M Expenses</b> claimed by the Petitioner in the instant petition	657.39	679.22	701.78	725.06	749.11
The trued-up <b>Total O&amp;M Expenses</b> allowed in the instant order	657.39	679.22	701.78	725.06	749.11

(₹ in lakh)

<b>Stage-II Combined Assets</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Total O&amp;M Expenses</b> approved vide order dated 17.12.2015 in Petition No. 446/TT/2014	890.25	920.14	950.41	982.14	1014.63
<b>Total O&amp;M Expenses</b> claimed by the Petitioner in the instant petition	890.25	920.14	950.41	982.14	1014.63
The trued-up <b>Total O&amp;M Expenses</b> allowed in the instant order	890.25	920.14	950.41	982.14	1014.63

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

48. The Petitioner is entitled to IWC as per Regulation 28 of the 2014 Tariff Regulations as follows:

#### **(i) Receivables**

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

#### **(ii) Maintenance spares**

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

#### **(iii) O & M expenses**



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

**(iv) Rate of interest on working capital**

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

49. The IWC allowed for the transmission assets as follows:

(₹ in lakh)

<b>Stage-I Combined Assets</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Working Capital for O&M Expenses (O&M Expenses for 1 Month)	54.78	56.60	58.48	60.42	62.43
Working Capital for Maintenance Spares (15% of O&M Expenses)	98.61	101.88	105.27	108.76	112.37
Working Capital for Receivables (Equivalent to 2 months of annual transmission charges)	262.78	261.37	200.88	204.36	208.52
<b>Total Working Capital</b>	<b>416.17</b>	<b>419.85</b>	<b>364.62</b>	<b>373.54</b>	<b>383.31</b>
Rate of Interest on Working Capital (in %)	13.50	13.50	13.50	13.50	13.50
<b>Interest on working capital</b>	<b>56.18</b>	<b>56.68</b>	<b>49.22</b>	<b>50.43</b>	<b>51.75</b>

(₹ in lakh)

<b>Stage-II Combined Assets</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Working Capital for O&M Expenses (O&M Expenses for 1 Month)	74.19	76.68	79.20	81.85	84.55
Working Capital for Maintenance Spares (15% of O&M)	133.54	138.02	142.56	147.32	152.19
Working Capital for Receivables (Equivalent to 2 months of annual transmission charges)	1753.16	1705.46	1674.09	1669.37	1677.21
<b>Total Working Capital</b>	<b>1960.88</b>	<b>1920.16</b>	<b>1895.85</b>	<b>1898.53</b>	<b>1913.96</b>
Rate of Interest on Working	13.50	13.50	13.50	13.50	13.50



Stage-II Combined Assets					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Capital (in %)					
Interest on working capital	264.72	259.22	255.94	256.30	258.38

50. Accordingly, the IWC approved vide order dated 17.12.2015 in Petition No. 446/TT/2014, IWC claimed in the instant petition and trued up IWC allowed in respect of the transmission asset are as follows:

(₹ in lakh)

Stage-I Combined Assets					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Interest on Working Capital approved vide order dated 17.12.2015 in Petition No. 446/TT/2014	56.19	56.63	49.16	50.37	51.67
Interest on Working Capital claimed by the Petitioner in the instant petition	56.19	56.69	49.23	50.43	51.75
The trued-up Interest on Working Capital allowed in the instant order	56.18	56.68	49.22	50.43	51.75

(₹ in lakh)

Stage-II Combined Assets					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Interest on Working Capital approved vide order dated 17.12.2015 in Petition No. 446/TT/2014	264.49	258.50	255.33	255.85	257.65
Interest on Working Capital claimed by the Petitioner in the instant petition	264.80	259.28	255.94	256.30	258.38
The trued-up Interest on Working Capital allowed in the instant order	264.72	259.22	255.94	256.30	258.38

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

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

(₹ in lakh)

Stage-I Combined Assets					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	430.40	430.40	68.52	68.52	68.52
Interest on Loan	54.57	21.94	5.75	2.19	0.74
Return on Equity	378.15	379.98	379.98	379.98	381.00
O&M Expenses	657.39	679.22	701.78	725.06	749.11



<b>Stage-I Combined Assets</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Interest on Working Capital	56.18	56.68	49.22	50.43	51.75
<b>Total</b>	<b>1576.68</b>	<b>1568.21</b>	<b>1205.25</b>	<b>1226.18</b>	<b>1251.12</b>

(₹ in lakh)

<b>Stage-II Combined Assets</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	4133.30	4133.30	4133.30	4133.30	4133.30
Interest on Loan	608.60	275.63	60.41	0.00	0.00
Return on Equity	4622.06	4644.45	4644.45	4644.45	4656.95
O&M Expenses	890.25	920.14	950.41	982.14	1014.63
Interest on Working Capital	264.72	259.22	255.94	256.30	258.38
<b>Total</b>	<b>10518.94</b>	<b>10232.74</b>	<b>10044.51</b>	<b>10016.20</b>	<b>10063.26</b>

52. Accordingly, the details of the Annual Transmission Charges approved vide order dated 17.12.2015 in Petition No. 446/TT/2014, the Annual Transmission Charges claimed in the instant petition and trued-up Annual Transmission Charges allowed in respect of the transmission asset are as follows:

(₹ in lakh)

<b>Stage-I Combined Assets</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
AFC approved vide order dated 17.12.2015 in Petition No. 446/TT/2014	1576.79	1566.06	1202.60	1223.46	1247.79
AFC claimed by the Petitioner in the instant petition	1577.07	1568.48	1205.25	1226.15	1251.09
The trued-up AFC allowed in the instant order	1576.68	1568.21	1205.25	1226.18	1251.12

(₹ in lakh)

<b>Stage-II Combined Assets</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
AFC approved vide order dated 17.12.2015 in Petition No. 446/TT/2014	10508.94	10200.89	10017.60	9996.19	10030.47
AFC claimed by the Petitioner in the instant petition	10522.55	10235.16	10044.51	10016.19	10063.26
The trued-up AFC allowed in the instant order	10518.94	10232.74	10044.51	10016.20	10063.26

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

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



(₹ in lakh)

Stage-I Combined Assets					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	68.44	68.46	68.44	68.46	68.44
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on equity	362.18	362.18	362.18	362.18	362.18
Interest on Working Capital	33.02	34.01	34.97	35.98	36.93
O & M Expenses	609.17	630.74	652.79	675.88	698.89
<b>Total</b>	<b>1072.81</b>	<b>1095.39</b>	<b>1118.38</b>	<b>1142.50</b>	<b>1166.44</b>

(₹ in lakh)

Stage-II Combined Assets					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	737.26	737.26	737.26	737.26	737.25
Interest on Loan	104.14	181.68	129.39	86.10	58.30
Return on equity	4587.10	4747.29	4747.29	4747.29	4747.29
Interest on Working Capital	119.57	121.86	119.35	119.92	120.48
O & M Expenses	863.53	779.05	795.27	823.34	851.90
<b>Total</b>	<b>6411.60</b>	<b>6567.14</b>	<b>6528.56</b>	<b>6513.91</b>	<b>6515.22</b>

54. The details of the IWC claimed by the Petitioner are as follows:

(₹ in lakh)

Stage-I Combined Assets					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	50.76	52.56	54.40	56.32	58.24
Maintenance Spares	91.38	94.61	97.92	101.38	104.83
Receivables	131.90	135.05	137.88	140.85	143.41
<b>Total Working Capital</b>	<b>274.04</b>	<b>282.22</b>	<b>290.20</b>	<b>298.55</b>	<b>306.48</b>
Rate of Interest on Working Capital (%)	12.05	12.05	12.05	12.05	12.05
<b>Interest on Working Capital</b>	<b>33.02</b>	<b>34.01</b>	<b>34.97</b>	<b>35.98</b>	<b>36.93</b>

(₹ in lakh)

Stage-II Combined Assets					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	72.55	69.56	66.27	68.61	70.99
Maintenance Spares	130.58	125.20	119.29	123.50	127.79
Receivables	789.18	816.50	804.89	803.08	801.05
<b>Total Working Capital</b>	<b>992.31</b>	<b>1011.26</b>	<b>990.45</b>	<b>995.19</b>	<b>999.83</b>
Rate of Interest on Working Capital (%)	12.05	12.05	12.05	12.05	12.05
<b>Interest on Working Capital</b>	<b>119.57</b>	<b>121.86</b>	<b>119.35</b>	<b>119.92</b>	<b>120.48</b>

### Capital Cost

55. 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. “

56. The capital cost of ₹8532.64 lakh and ₹79893.80 lakh has been considered by the Commission for the Stage-I and Stage-II Combined Assets as on 31.3.2019. Therefore, the capital cost of ₹8532.64 lakh and ₹79893.80 lakh as on 31.3.2019 has been considered as the opening capital cost as on 1.4.2019 for the purpose of



determination of transmission tariff for the 2019-24 period in accordance with Regulation 19 of the 2019 Tariff Regulations.

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

57. Regulation 24 and Regulation 25 of the 2019 Tariff Regulations provides as follows:

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

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

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

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

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

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

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

- (a) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority, or order or decree of any court of law;*
- (b) Change in law or compliance of any existing law;*
- (c) Deferred works relating to ash pond or ash handling system in the original scope of work;*
- (d) Liability for works executed prior to the cut-off date;*



- (e) *Force Majeure events;*
- (f) *Liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments;*
- (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.”*

58. The Petitioner had claimed ACE of ₹5686.00 lakh during the years 2019-20 for Stage-II Combined Assets covered in the instant petition. The Petitioner submitted that ACE of ₹5686.00 lakh is beyond the cut-off date and is due to enhanced land payment on account of court order and is covered under Regulation 25(1)(a) of the 2019 Tariff Regulation. The Petitioner has also submitted the copy of court orders for claiming the same.

59. Further, the Petitioner submitted that the liability of ₹25.30 lakh continues in books against sub-station package for Stage-II Combined Assets and the same will be claimed upon actual payment done if any during true-up of 2019-24.

60. We have considered the submissions of the Petitioner. The estimated ACE of ₹5686.00 lakh is allowed for Stage-II Combined Assets under Regulation 25(1)(a) of the 2019 Tariff Regulations. The Petitioner has further submitted that an amount of ₹25.30 lakh will be claimed at the time of truingup of 2019-24 period and the same is not allowed at this stage.



61. Accordingly, the capital cost of the transmission assets as on 31.3.2024 is allowed as follows:

(₹ in lakh)			
<b>Assets</b>	<b>Capital Cost allowed (as on 1.4.2019)</b>	<b>ACE 2019-20</b>	<b>Capital Cost (as on 31.3.2024)</b>
Stage-I Combined Assets	8532.64	0.00	8532.64
Stage-II Combined Assets	79893.80	5686.00	85579.80

### **De-capitalisation**

62. The Petitioner vide affidavit dated 27.8.2021 has submitted that Tehri-Meerut Ckt-I and Ckt-II covered under Asset-f and Asset-g of Stage-II Combined Assets was initially charged in 400 kV level and it has been upgraded to 765 kV level on 17.4.2020 (Ckt-I) and 30.6.2020 (Ckt-II). The upgradation scheme has been discussed and recommended in 32<sup>nd</sup> SCM held on 31.8.2013 and in 29<sup>th</sup> meetings of NRPC held on 13.9.2013. With the upgradation of the same, two 400 kV Line bays at Meerut and two 50 MVAR switchable line reactor along with associated bays have remained unused.

63. The Petitioner has submitted that as per Regulation 19(5)(b) of the 2019 Tariff Regulations, if replacement of transmission asset/ equipment is recommended by the Regional Power Committee, such asset/ equipment shall be de-capitalized only after its redeployment and accordingly, these asset/ equipment need not be de-capitalized.

64. The Petitioner has further submitted that the asset/ equipment not in use will be discussed in the upcoming RPC wherein it is being proposed to charge 2x50 MVAR reactor in parallel operation as bus reactor and one number line bay to be



utilized for 125 MVAR bus reactor being installed in NRSS-XL. Accordingly, on approval of RPC, two 400 kV line bays and two 50 MVAR reactor will be put to use.

65. We have considered the submissions of the Petitioner. Regulation 19(5)(b) of the 2019 Tariff Regulations provides as follows:

*“19. Capital Cost*

*xxxx*

*xxxx*

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

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

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

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

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

66. The minutes of the 32<sup>nd</sup> SCM on Power System Planning in Northern Region held on 31.8.2013 at NRPC, Delhi, referred to by the Petitioner is as extracted as under:

**“13.0 Tehri PSP Transmission System**

*13.1 POWERGRID stated that due to severe constraints in transportation of 500 MVA, 765/400 kV ICTs (Single Phase units) to Tehri Pooling station, POWERGRID proposed to provide 4 nos. of 800 MVA ICTs (14 Single Phase Units including 2 nos. spare units) instead of 3nos. of 1500 MVA ICTs. The four nos. of 800 MVA, 765/400 kV ICTs shall be able to evacuate from Tehri / Koteshwar HEPs. Accordingly Transmission system for Tehri PSP was modified as:*

*i. Tehri Generation – Tehri Pooling Stn. 400 kV S/c (Quad Conductor)*

*ii. Establishment of 765/400 kV, 4x800 MVA ICTs and GIS substation at Tehri Pooling station*

*iii. Augmentation of 765/400 kV, 2x1500 MVA transformation capacity by 1x1500 MVA at Meerut*

*iv. **Charging of Tehri Pooling – Meerut line at 765 kV level***

*v. Modification of Series Capacitors for operation at 765 kV level”*



67. The minutes of the 26<sup>th</sup> meeting of Technical Coordination Sub-Committee (TCC) and 29<sup>th</sup> meeting of Northern Regional Power Committee (NRPC) was held on 12th and 13th September, 2013, relied upon by the Petitioner is extracted as under:

**“D.8.6 Tehri PSP Transmission System**

*Representative of POWERGRID stated that due to severe constraints in transportation of 500 MVA, 765/400 kV ICTs (Single Phase units) to Tehri Poolingstation, 4 nos. of 800 MVA ICTs (14 Single Phase Units including 2 nos. spare units) instead of 3 nos. of 1500 MVA ICTs had been proposed and agreed in the 32<sup>nd</sup> Standing Committee Meeting. Accordingly, the modified Transmission system for Tehri PSP would be as:*

- *Tehri Generation – Tehri Pooling Stn. 400 kV S/c (Quad Conductor)*
  - *Establishment of 765/400 kV, 4x800 MVA ICTs and GIS substation at Tehri Pooling station*
  - *Augmentation of 765/400 transformation capacity by 1x1500 MVA at Meerut*
  - **Charging of Tehri Pooling – Meerut line at 765 kV level**
  - *Modification of Series Capacitors for operation at 765 kV level*
- Members concurred with the modified system for Tehri PSP.”*

68. From the above minutes, we observe that charging of Tehri Pooling-Meerut Transmission Line at 765 kV level was approved. Accordingly, the tariff of the replaced Asset-f and Asset-g is approved under Regulation 19(5)(b) of the 2019 Tariff Regulations. However, both the minutes of SCM and RPC are silent about the use of the two vacated 400 kV line bays at Meerut and two replaced 50 MVAR switchable line Reactors alongwith associated bays. The Petitioner has submitted that the use of the replaced asset/ equipment will be discussed in the upcoming RPC. It is observed that the upgradation of Asset-f and Asset-g was agreed in the year 2013 and the upgradation was completed in the year 2020. However, no decision has been taken regarding the use of the replaced asset/ equipment. To ensure that the replaced asset/ equipment do not remain without use and are put to use at the earliest, the Petitioner should have chalked out an appropriate plan for their use and sought the approval of RPC alongwith the approval for upgradation.





Therefore, the Petitioner is directed to put these replaced asset/ equipment to use at the earliest and submit the status at the time of truing up.

### **Debt-Equity Ratio**

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

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

*Provided that:*

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

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

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

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

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

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

*(4) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2019, but where debt: equity ratio has not been determined by the Commission for*



determination of tariff for the period ending 31.3.2019, the Commission shall approve the debt: equity ratio in accordance with clause (1) of this Regulation.

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

(6) Any expenditure incurred for the emission control system during the tariff period as may be admitted by the Commission as additional capital expenditure for determination of supplementary tariff, shall be serviced in the manner specified in clause (1) of this Regulation.”

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

<b>Stage-I Combined Assets</b>	<b>Capital cost as on 1.4.2019 (₹ in lakh)</b>	<b>(in %)</b>	<b>Total cost as on 31.3.2024 (₹ in lakh)</b>	<b>(in %)</b>
Debt	6604.30	77.40	6604.30	77.40
Equity	1928.34	22.60	1928.34	22.60
<b>Total</b>	<b>8532.64</b>	<b>100.00</b>	<b>8532.64</b>	<b>100.00</b>
<b>Stage-II Combined Assets</b>	<b>Capital cost as on 1.4.2019 (₹ in lakh)</b>	<b>(in %)</b>	<b>Total cost as on 31.3.2024 (₹ in lakh)</b>	<b>(in %)</b>
Debt	56323.87	70.50	60304.07	70.47
Equity	23569.93	29.50	25275.73	29.53
<b>Total</b>	<b>79893.80</b>	<b>100.00</b>	<b>85579.80</b>	<b>100.00</b>

#### **Depreciation**

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

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

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

*(2) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. In case of multiple units of a generating station*





or multiple elements of a transmission system, weighted average life for the generating station of the transmission system shall be applied. Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis.

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

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

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

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

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

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

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

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

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

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

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

(9) Where the emission control system is implemented within the original scope of the generating station and the date of commercial operation of the generating station or unit thereof and the date of operation of the emission control system are the same, depreciation of the generating station or unit thereof including the emission



control system shall be computed in accordance with Clauses (1) to (8) of this Regulation.

(10) Depreciation of the emission control system of an existing or a new generating station or unit thereof where the date of operation of the emission control system is subsequent to the date of commercial operation of the generating station or unit thereof, shall be computed annually from the date of operation of such emission control system based on straight line method, with salvage value of 10%, over a period of-

- a) twenty five years, in case the generating station or unit thereof is in operation for fifteen years or less as on the date of operation of the emission control system; or
- b) balance useful life of the generating station or unit thereof plus fifteen years, in case the generating station or unit thereof is in operation for more than fifteen years as on the date of operation of the emission control system; or
- c) ten years or a period mutually agreed by the generating company and the beneficiaries, whichever is higher, in case the generating station or unit thereof has completed its useful life.”

72. We have considered the submissions of the Petitioner. The Stage-I and Stage-II Combined Assets has completed 12 years of life as on 31.3.2016 and 31.3.2019 respectively and, therefore, the remaining depreciable value has been spread across the balance useful life of the assets. The depreciation allowed for the Stage-I and Stage-II Combined Assets for the 2019-24 tariff period is as follows:

(₹ in lakh)					
<b>Stage-I Combined Assets</b>					
<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Opening Gross Block	8532.64	8532.64	8532.64	8532.64	8532.64
Addition during 2019-24 due to projected ACE	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	8532.64	8532.64	8532.64	8532.64	8532.64
Average Gross Block	8532.64	8532.64	8532.64	8532.64	8532.64
Elapsed useful life at the beginning of the year (Year)	15.00	16.00	17.00	18.00	19.00
Balance useful life at the beginning of the year (Year)	15.00	14.00	13.00	12.00	11.00
Depreciable Value	7495.40	7495.40	7495.40	7495.40	7495.40
Rate of Depreciation (%)	0.80	0.80	0.80	0.80	0.80
<b>Depreciation during the year</b>	<b>68.52</b>	<b>68.52</b>	<b>68.52</b>	<b>68.52</b>	<b>68.52</b>



Cumulative Depreciation at the end of the year	6536.12	6604.64	6673.16	6741.68	6810.20
Remaining Aggregate Depreciable Value at the end of the year	959.28	890.76	822.24	753.72	685.20

(₹ in lakh)

Stage-II Combined Assets					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	79893.80	85579.80	85579.80	85579.80	85579.80
Addition during 2019-24 due to projected ACE	5686.00	0.00	0.00	0.00	0.00
Closing Gross Block	85579.80	85579.80	85579.80	85579.80	85579.80
Average Gross Block	82736.80	85579.80	85579.80	85579.80	85579.80
Elapsed useful life at the beginning of the year (Year)	12.00	13.00	14.00	15.00	16.00
Balance useful life at the beginning of the year (Year)	21.00	20.00	19.00	18.00	17.00
Depreciable Value	70657.85	70657.85	70657.85	70657.85	70657.85
Rate of Depreciation (%)	0.89	0.86	0.86	0.86	0.86
<b>Depreciation during the year</b>	<b>737.25</b>	<b>737.25</b>	<b>737.25</b>	<b>737.25</b>	<b>737.25</b>
Cumulative Depreciation at the end of the year	55912.77	56650.02	57387.28	58124.53	58861.78
Remaining Aggregate Depreciable Value at the end of the year	14745.08	14007.83	13270.57	12533.32	11796.06

### **Interest on Loan (“IoL”)**

73. 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.*

*(5a) The rate of interest on loan for installation of emission control system shall be the weighted average rate of interest of actual loan portfolio of the emission control system or in the absence of actual loan portfolio, the weighted average rate of interest of the generating company 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”.*

74. As the entire loan of Stage-I Combined Assets has been repaid prior to 1.4.2019, no IoL has been claimed by the Petitioner for 2019-24 tariff period. Accordingly, no IoL has been allowed for 2019-24 tariff period for Stage-I Combined Assets.

75. The Petitioner has claimed IoL for Stage-II Combined Assets. 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 the change in interest rate due to floating rates of interest applicable, if any, during the 2019-24 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true up. In view of above, the IoL has been worked out in accordance with Regulation 32 of the 2019 Tariff Regulations. The IoL allowed for the Stage-II Combined Assets for the 2019-24 tariff period is as follows:



(₹ in lakh)

Stage-II Combined Assets					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	56323.87	60304.07	60304.07	60304.07	60304.07
Cumulative Repayments up to Previous Year	56323.87	57061.12	57798.38	58535.63	59272.89
Net Loan-Opening	0.00	3242.95	2505.69	1768.44	1031.18
Addition due to ACE	3980.20	0.00	0.00	0.00	0.00
Repayment during the year	737.25	737.25	737.25	737.25	737.25
Net Loan-Closing	3242.95	2505.69	1768.44	1031.18	293.93
Average Loan	1621.47	2874.32	2137.07	1399.81	662.56
Weighted Average Rate of Interest on Loan (in %)	6.42	6.32	6.05	6.15	8.80
<b>Interest on Loan</b>	<b>104.14</b>	<b>181.68</b>	<b>129.39</b>	<b>86.10</b>	<b>58.31</b>

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

76. Regulations 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 on account of emission control system, shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission system or in the absence of actual loan portfolio of the generating station or the transmission system, the weighted average rate of interest of the generating company or the transmission licensee, as the case may be, as a whole shall be considered, subject to ceiling of 14%;*

*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.

(3) The return on equity in respect of additional capitalization on account of emission control system shall be computed at the base rate of one year marginal cost of lending rate (MCLR) of the State Bank of India as on 1st April of the year in which the date of operation (ODe) occurs plus 350 basis point, subject to ceiling of 14%;

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 rates shall be considered on the basis of actual tax paid in respect of the financial year in line with the provisions of the relevant Finance Acts by the concerned generating company or the transmission licensee, as the case may be. The actual tax paid on income from other businesses including deferred tax liability (i.e. income from business other than business of generation or transmission, as the case may be) shall be excluded for the calculation of effective tax rate.

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

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

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

#### **Illustration-**

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

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

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

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

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





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

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

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

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

(₹ in lakh)

Stage-I Combined Assets					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	1928.34	1928.34	1928.34	1928.34	1928.34
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	1928.34	1928.34	1928.34	1928.34	1928.34
Average Equity	1928.34	1928.34	1928.34	1928.34	1928.34
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (in %)	18.782	18.782	18.782	18.782	18.782
<b>Return on Equity</b>	<b>362.18</b>	<b>362.18</b>	<b>362.18</b>	<b>362.18</b>	<b>362.18</b>

(₹ in lakh)

Stage-II Combined Assets					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	23569.93	25275.73	25275.73	25275.73	25275.73
Additions	1705.80	0.00	0.00	0.00	0.00
Closing Equity	25275.73	25275.73	25275.73	25275.73	25275.73
Average Equity	24422.83	25275.73	25275.73	25275.73	25275.73
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (in %)	18.782	18.782	18.782	18.782	18.782
<b>Return on Equity</b>	<b>4587.10</b>	<b>4747.29</b>	<b>4747.29</b>	<b>4747.29</b>	<b>4747.29</b>



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

78. Regulation 35(3)(a) of the 2019 Tariff Regulations specifies the norms for O&M Expenses for the transmission system and the same are 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>
<b>Norms for sub-station Bays (₹ Lakh per bay)</b>					
765 Kv	45.01	46.60	48.23	49.93	51.68
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84
132 kV and below	16.08	16.64	17.23	17.83	18.46
<b>Norms for Transformers (₹ Lakh per MVA)</b>					
765 kV	0.491	0.508	0.526	0.545	0.564
400 kV	0.358	0.371	0.384	0.398	0.411
220 kV	0.245	0.254	0.263	0.272	0.282
132 kV and below	0.245	0.254	0.263	0.272	0.282
<b>Norms for AC and HVDC lines (₹ Lakh per km)</b>					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-conductors)	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773
<b>Norms for HVDC stations</b>					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	834	864	894	925	958
Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)	1,666	1,725	1,785	1,848	1,913
500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)	2,252	2,331	2,413	2,498	2,586
±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)	2,468	2,555	2,645	2,738	2,834
±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)	1,696	1,756	1,817	1,881	1,947





<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.”*

79. The Petitioner has submitted that the O&M Expenses of 400 kV line bay at Meerut and Switchable Line Reactor (SLR) bay pertaining to Tehri-Meerut Ckt-I is being stopped from 20.2.2020 and O&M Expenses of 400 kV line bay at Meerut and SLR bay pertaining to Tehri-Meerut Ckt-II is being stopped from 30.5.2020.

80. We have considered the submissions of the Petitioner. The O&M Expenses of 2 number of 400 kV line bays at Meerut is not allowed from 20.2.2020 and O&M Expenses of another 2 number of 400 kV line bays at Meerut is not allowed from 30.5.2020.

81. The O&M Expenses claimed by the Petitioner for the Stage-I Combined Assets and Stage-II Combined Assets are as follows:

<b>Stage-I Combined Assets</b>					
<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
<b>Sub-station Bays (Number)</b>					
400 kV	6 Numbers				
220 kV	6 Numbers				
<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>327.96</b>	<b>339.48</b>	<b>351.42</b>	<b>363.72</b>	<b>376.50</b>
<b>AC Lines</b>					
D/C Twin/Triple Conductor	59.868 km				
<b>Norm (₹ lakh/km)</b>	0.881	0.912	0.944	0.977	1.011
<b>Total Transmission line O&amp;M Expenses (₹ in lakh)</b>	<b>52.74</b>	<b>54.60</b>	<b>56.52</b>	<b>58.49</b>	<b>60.53</b>
<b>Transformer</b>					
400 kV (MVA) (2X315 MVA at Meerut Sub-station)	630	630	630	630	630
<b>Norms (₹ lakh/MVA)</b>	0.36	0.37	0.38	0.40	0.41
<b>Total Transformer</b>	<b>225.54</b>	<b>233.73</b>	<b>241.92</b>	<b>250.74</b>	<b>258.93</b>
<b>Communication system</b>					
PLCC (₹ in lakh)	146.5	146.5	146.5	146.5	146.5
<b>Norms (in %)</b>	2	2	2	2	2
<b>Total Communication System</b>	<b>2.93</b>	<b>2.93</b>	<b>2.93</b>	<b>2.93</b>	<b>2.93</b>
<b>Total O&amp;M Expenses</b>	<b>609.17</b>	<b>630.74</b>	<b>652.79</b>	<b>675.88</b>	<b>698.89</b>



(₹ in lakh)					
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Stage-II Combined Assets					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Sub-station Bays (Number)</b>					
400 kV	8	6	4	4	4
220 kV	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>340.22</b>	<b>237.26</b>	<b>234.28</b>	<b>242.48</b>	<b>251.00</b>
<b>AC Lines</b>					
S/C (Bundle Conductor- 4 sub-c)	369.489 km				
S/C (Twin/Triple Conductor)	37.387 km				
<b>Norm (₹ lakh/km)</b>	0.755	0.781	0.809	0.837	0.867
<b>Norm (₹ lakh/km)</b>	0.503	0.521	0.539	0.558	0.578
<b>Total Transmission line O&amp;M Expenses (₹ in lakh)</b>	<b>297.77</b>	<b>308.05</b>	<b>319.07</b>	<b>330.12</b>	<b>341.96</b>
<b>Transformer</b>					
400 kV (MVA) ( 1X315 MVA ICT at Meerut and 1 X315 MVA ICT at Muzaffarnagar)	630	630	630	630	630
<b>Norms (₹ lakh/MVA)</b>	0.36	0.37	0.38	0.40	0.41
<b>Total Transformer</b>	<b>225.54</b>	<b>233.73</b>	<b>241.92</b>	<b>250.74</b>	<b>258.93</b>
<b>Total O&amp;M Expenses (₹ in lakh)</b>	<b>863.53</b>	<b>779.05</b>	<b>795.27</b>	<b>823.34</b>	<b>851.90</b>

82. The Petitioner has claimed O&M Expenses separately for PLCC under Regulation 35(4) of the 2019 Tariff Regulations for Stage-I Combined Assets @2% of its cost. 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 substation 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.



83. The O&M Expenses are approved for the transmission asset for the 2019-24 tariff period as follows:

<b>Stage-I Combined Assets</b>					
<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
<b>Sub-station Bays (Number)</b>					
400 kV	6 Numbers				
220 kV	6 Numbers				
<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>327.96</b>	<b>339.48</b>	<b>351.42</b>	<b>363.72</b>	<b>376.50</b>
<b>AC Lines</b>					
D/C Twin/Triple Conductor	59.868 km				
<b>Norm (₹ lakh/km)</b>	0.881	0.912	0.944	0.977	1.011
<b>Total Transmission line O&amp;M Expenses (₹ in lakh)</b>	<b>52.74</b>	<b>54.60</b>	<b>56.52</b>	<b>58.49</b>	<b>60.53</b>
<b>Transformer</b>					
400 kV (MVA)	630	630	630	630	630
<b>Norms (₹ lakh/MVA)</b>	0.36	0.37	0.38	0.40	0.41
<b>Total Transformer</b>	<b>225.54</b>	<b>233.73</b>	<b>241.92</b>	<b>250.74</b>	<b>258.93</b>
<b>Total O&amp;M Expenses (₹ in lakh)</b>	<b>606.24</b>	<b>627.81</b>	<b>649.86</b>	<b>672.95</b>	<b>695.96</b>

<b>Stage-II Combined Assets</b>					
<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
<b>Sub-station Bays (Number)</b>					
400 kV	8	6	4	4	4
220 kV	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>340.22</b>	<b>237.26</b>	<b>234.28</b>	<b>242.48</b>	<b>251.00</b>
<b>AC &amp; HVDC Lines</b>					
S/C (Bundle Conductor- 4 sub-c)	369.489 km				
S/C (Twin/Triple Conductor)	37.387 km				
<b>Norm (₹ lakh/km)</b>	0.755	0.781	0.809	0.837	0.867
<b>Norm (₹ lakh/km)</b>	0.503	0.521	0.539	0.558	0.578
<b>Total Transmission line O&amp;M Expenses (₹ in lakh)</b>	<b>297.77</b>	<b>308.05</b>	<b>319.07</b>	<b>330.12</b>	<b>341.96</b>
<b>Transformer</b>					
400 kV (MVA)	630	630	630	630	630
<b>Norms (₹ lakh/MVA)</b>	0.36	0.37	0.38	0.40	0.41
<b>Total Transformer</b>	<b>225.54</b>	<b>233.73</b>	<b>241.92</b>	<b>250.74</b>	<b>258.93</b>
<b>Total O&amp;M Expenses (₹ in lakh)</b>	<b>863.53</b>	<b>779.05</b>	<b>795.27</b>	<b>823.34</b>	<b>851.90</b>



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

84. Regulation 34(1)(c), Regulation 34(3), Regulation 34(4) and Regulation 3(7) of the 2019 Tariff Regulations provide 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;"*

85. The Petitioner has submitted that it has computed IWC for the 2019-24 period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of interest on working capital as 12.05%. The IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The Rate of Interest (RoI) on working capital considered is 12.05% (SBI 1 year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20, 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 for the transmission assets are as follows:

(₹ in lakh)					
<b>Stage-I Combined Assets</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Working Capital for O&M Expenses (O&M Expenses for 1 Month)	50.52	52.32	54.15	56.08	58.00
Working Capital for Maintenance Spares (15% of O&M EXpenses)	90.94	94.17	97.48	100.94	104.39
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost/ annual transmission charges)	131.54	134.40	136.96	139.91	142.46
<b>Total Working Capital</b>	<b>272.99</b>	<b>280.89</b>	<b>288.59</b>	<b>296.93</b>	<b>304.85</b>
Rate of Interest on Working Capital (in %)	12.05	11.25	10.50	10.50	10.50
<b>Interest of working capital</b>	<b>32.90</b>	<b>31.60</b>	<b>30.30</b>	<b>31.18</b>	<b>32.01</b>

(₹ in lakh)					
<b>Stage-II Combined Assets</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Working Capital for O&M Expenses (O&M Expenses for 1 Month)	72.55	69.55	66.27	68.61	70.99
Working Capital for Maintenance Spares (15% of O&M)	130.58	125.20	119.29	123.50	127.78
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost/ annual transmission charges)	789.17	815.49	802.97	801.16	799.12
<b>Total Working Capital</b>	<b>992.30</b>	<b>1010.24</b>	<b>988.53</b>	<b>993.27</b>	<b>997.89</b>
Rate of Interest on Working Capital (in %)	12.05	11.25	10.50	10.50	10.50
<b>Interest of working capital</b>	<b>119.57</b>	<b>113.65</b>	<b>103.80</b>	<b>104.29</b>	<b>104.78</b>

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

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

(₹ in lakh)					
<b>Stage-I Combined Assets</b>					
<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Depreciation	68.52	68.52	68.52	68.52	68.52
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	362.18	362.18	362.18	362.18	362.18



<b>Stage-I Combined Assets</b>					
<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
O&M Expenses	606.24	627.81	649.86	672.95	695.96
Interest on Working Capital	32.90	31.60	30.30	31.18	32.01
<b>Total</b>	<b>1069.84</b>	<b>1090.11</b>	<b>1110.86</b>	<b>1134.83</b>	<b>1158.67</b>

(₹ in lakh)

<b>Stage-II Combined Assets</b>					
<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Depreciation	737.25	737.25	737.25	737.25	737.25
Interest on Loan	104.14	181.68	129.39	86.10	58.31
Return on Equity	4587.10	4747.29	4747.29	4747.29	4747.29
O&M Expenses	863.53	779.05	795.27	823.34	851.90
Interest on Working Capital	119.57	113.65	103.80	104.29	104.78
<b>Total</b>	<b>6418.62</b>	<b>6614.54</b>	<b>6512.99</b>	<b>6498.28</b>	<b>6499.51</b>

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

87. 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**

88. The Petitioner has sought reimbursement of licence fee in accordance with Regulation 70(4) of the 2019 Tariff Regulations for 2019-24 period. The Petitioner has also sought reimbursement of RLDC fee and charges in accordance with Regulation 70(3) of the 2019 Tariff Regulations for 2019-24 tariff period. The Petitioner shall be entitled to Licence Fee and RLDC Fees and Charges in terms of 2019 Tariff Regulations.

### **Security Expenses**

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





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

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

### **Goods and Services Tax**

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

### **Capital Spares**





92. 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**

93. During the tariff periods 2001-04, 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 is governed by Central Electricity Regulatory Commission(Sharing of Transmission Charges and Losses) Regulations, 2010 and with effect from 1.11.2020, sharing is governed by Central Electricity Regulatory Commission (Sharing of Transmission Charges and Losses) Regulations, 2020 (2020 Sharing Regulations). Accordingly, the liabilities of the DICs for arrears of transmission charges determined through this order shall be computed DIC-wise in accordance with the provisions of respective Tariff Regulations and Sharing Regulations and shall be recovered from the concerned DICs through Bill 2 under Regulation 15(2)(b) of the 2020 Sharing Regulations. Billing, collection and disbursement of transmission charges for subsequent period shall be recovered in terms of the provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.

94. To summarise:

- a) The revised AFC allowed for the transmission asset for the 2003-04 tariff period are as follows:

(₹ in lakh)	
Asset	2003-04 (Pro-rata for 6 months)
Asset -a	228.27



(₹ in lakh)	
Asset	2003-04
Asset -b	462.83

(₹ in lakh)	
Asset	2003-04
Asset -c	218.91

(₹ in lakh)	
Asset	2003-04 (Pro-rata for 6 months)
Asset -d	254.74

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

(₹ in lakh)					
Assets	2004-05	2005-06	2006-07	2007-08	2008-09
Asset –a	539.28	558.77	542.46	524.75	488.14
Asset –b	490.51	487.94	474.10	458.88	424.95
Asset –c	282.77	285.35	283.77	281.82	272.91
Asset –d	388.83	455.98	447.82	439.29	423.81

(₹ in lakh)				
Assets	2005-06 (Pro-rata 8 months)	2006-07	2007-08	2008-09
Asset–e	263.06	409.73	423.02	430.60

(₹ in lakh)			
Assets	2006-07	2007-08	2008-09
Asset-f	5522.69	5330.30	5008.41

(₹ in lakh)			
Assets	2006-07 (Pro-rata 10 months)	2007-08	2008-09
Asset-g	5525.40	6189.14	5713.50

(₹ in lakh)			
Assets	2006-07 (Pro-rata 2 months)	2007-08	2008-09
Asset-h	52.97	302.79	308.43

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

(₹ in lakh)					
Assets	2009-10	2010-11	2011-12	2012-13	2013-14
Stage-I Combined Assets	1663.34	1669.46	1670.29	1666.24	1668.73
Stage-II Combined Assets	11952.55	11815.90	11536.77	11201.20	10932.49



d) The trued-up AFC allowed for the transmission asset for the 2014-19 tariff period are as follows:

(₹ in lakh)					
<b>Assets</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Stage-I Combined Assets	1576.68	1568.21	1205.25	1226.18	1251.12
Stage-II Combined Assets	10518.94	10232.74	10044.51	10016.20	10063.26

e) The AFC allowed for the transmission asset for the 2019-24 tariff period in this order are as follows:

(₹ in lakh)					
<b>Assets</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Stage-I Combined Assets	1069.84	1090.11	1110.86	1134.83	1158.67
Stage-II Combined Assets	6418.62	6614.54	6512.99	6498.28	6499.51

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

96. This order disposes of Petition No. 271/TT/2020 in terms of the above discussion and findings.

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

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

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

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



## Annexure-I

Petition No.	271/TT/2020								
Period	2014-19 Tariff Period								
Asset	Stage-I Combined Assets								
2014-19	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE (₹ in lakh)	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)				
Capital Expenditure		2014-19			2014-15	2015-16	2016-17	2017-18	2018-19
Land	204.42	0.00	204.42	0.00	0.00	0.00	0.00	0.00	0.00
Building	560.45	0.00	560.45	3.34	18.72	18.72	Spreading		
Transmission Line	3959.59	0.00	3959.59	5.28	209.07	209.07			
Sub Station	3661.68	0.00	3661.68	5.28	193.34	193.34			
PLCC	146.50	0.00	146.50	6.33	9.27	9.27			
<b>TOTAL</b>	<b>8532.64</b>	<b>0.00</b>	<b>8532.64</b>		<b>430.40</b>	<b>430.40</b>	<b>68.52</b>	<b>68.52</b>	<b>68.52</b>
<b>Average Gross Block (₹ in lakh)</b>					8532.64	8532.64	8532.64	8532.64	8532.64
<b>Weighted Average Rate of Depreciation (in %)</b>					5.04	5.04	0.80	0.80	0.80



**Annexure-II**

<b>Petition No.</b>	<b>271/TT/2020</b>								
<b>Period</b>	<b>2014-19 Tariff Period</b>								
<b>Asset</b>	<b>Stage-II Combined Assets</b>								
<b>2014-19</b>	<b>Admitted Capital Cost as on 1.4.2014</b>	<b>ACE (₹ in lakh)</b>	<b>Admitted Capital Cost as on 31.3.2019 (₹ in lakh)</b>	<b>Rate of Depreciation as per Regulations</b>	<b>Annual Depreciation as per Regulations (₹ in lakh)</b>				
<b>Capital Expenditure</b>		<b>2014-19</b>			<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>



	(₹ in lakh)								
Land	1385.08	0.00	1385.08	0.00	0.00	0.00	0.00	0.00	0.00
Building	693.15	0.00	693.15	3.34	23.15	23.15	23.15	23.15	23.15
Transmission Line	71022.38	0.00	71022.38	5.28	3749.98	3749.98	3749.98	3749.98	3749.98
Sub Station	6651.52	0.00	6651.52	5.28	351.20	351.20	351.20	351.20	351.20
PLCC	141.67	0.00	141.67	6.33	8.97	8.97	8.97	8.97	8.97
<b>TOTAL</b>	<b>79893.80</b>	<b>0.00</b>	<b>79893.80</b>		<b>4133.30</b>	<b>4133.30</b>	<b>4133.30</b>	<b>4133.30</b>	<b>4133.30</b>
					<b>Average Gross Block (₹ in lakh)</b>	79893.80	79893.80	79893.80	79893.80
					<b>Weighted Average Rate of Depreciation (in %)</b>	5.17	5.17	5.17	5.17

