

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 115/TT/2020**

**Coram:**

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

**Date of Order: 11.04.2022**

**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 2004-09 and 2009-14 tariff periods and truing-up of transmission tariff of 2014-19 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of 2019-24 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 in respect of **Asset-I:** 500 MW HVDC back to back station at Gazuwaka, **Asset-II:** Vijayawada-Gazuwaka 400 kV D/C Line and 50% FSC Jeypore-Gazuwaka 400 kV D/C Transmission Line at Jeypore and **Asset-III:** (a) 40% FSC on Rengali-Indravati 400 kV S/C Transmission Line and (b) 40% FSC on Meramundali-Jeypore 400 kV S/C Transmission Line at Jeypore under "Augmentation of capacity of Gazuwaka HVDC back to back project (500 MW)" in Southern Region and Eastern Region.

**And in the matter of:**

Power Grid Corporation of India Limited,  
"Saudamini", Plot No. 2,  
Sector 29, Gurgaon –122 001, (Haryana).

**.....Petitioner**

**Vs.**

1. Karnataka Power Transmission Corporation Limited,  
Kaveri Bhavan, Bangalore-560009.
2. Transmission Corporation of Andhra Pradesh Limited,  
Vidyut Soudha, Hyderabad-500082.
3. Kerala State Electricity Board,  
Vaidyuthi Bhavanam,  
Pattom, Thiruvananthapuram-695004.
4. Tamil Nadu Generation and Distribution Corporation Limited,  
(Formerly Tamilnadu Electricity Board-TNEB),  
NPKRR Maaligai, 800, Anna Salai, Chennai-600002.



5. Electricity Department,  
Government of Pondicherry,  
Pondicherry-605001.
6. Eastern Power Distribution Company of Andhra Pradesh Limited,  
P&T Colony, Seethmmadhara, Vishakhapatnam, Andhra Pradesh.
7. Southern Power Distribution Company of Andhra Pradesh Limited,  
Srinivasasa Kalyana Mandapam Backside, Tiruchanoor Road,  
Kesavayana Gunta, Tirupati-517501, Chittoor District, Andhra Pradesh.
8. Southern Power Distribution Company of Telangana Limited,  
Corporate Office, Mint Compound, Hyderabad-500063, Telangana.
9. Northern Power Distribution Company of Telangana Limited,  
Opp. NIT Petrol Pump, Chaitanyapuri, Kazipet,  
Warangal-506004, Telangana.
10. Bangalore Electricity Supply Company Limited,  
Corporate Office, K. R. Circle,  
Bangalore-560001, Karnataka.
11. Gulbarga Electricity Supply Company Limited,  
Station Main Road, Gulbarga, Karnataka.
12. Hubli Electricity Supply Company Limited,  
Navanagar, PB Road, Hubli, Karnataka.
13. Mangalore Electricity Supply Company Limited,  
MESCOM Corporate Office, Paradigm Plaza,  
AB Shetty Circle, Mangalore-575001, Karnataka.
14. Chamundeswari Electricity Supply Corporation Limited,  
927, L J Avenue, Ground Floor, New Kantharaj URS Road,  
Saraswatipuram, Mysore-570009, Karnataka.
15. Electricity Department,  
Government of Goa,  
Vidyuti Bhawan, Panaji, Goa-403001.
16. Transmission Corporation of Telangana Limited,  
Vidhyut Sudha, Khairatabad, Hyderabad-500082.
17. Tamil Nadu Transmission Corporation,  
NPKRR Maaligai, 800, Anna Salai,  
Chennai-600002.
18. Bihar State Electricity Board,  
Vidyut Bhawan, Bailey Road,  
Patna-800001.



19. West Bengal State Electricity Distribution Company, Bidyut Bhawan, Bidhan Nagar, Block DJ, Sector-II, Salt Lake City, Calcutta-700091.
20. Grid Corporation of Orissa Limited, Shahid Nagar, Bhubaneswar-751007.
21. Damodar Valley Corporation, DVC Tower, Maniktala, Civic Centre, VIP Road, Calcutta-700054.
22. Power Department, Government of Sikkim, Gangtok-737101.
23. Jharkhand State Electricity Board, In Front of Main Secretariat, Doranda, Ranchi-834002.

.....Respondents

**For Petitioner** : Shri S. S. Raju, PGCIL  
Ms. Anshul Garg, PGCIL  
Shri D.K. Biswal, PGCIL  
Shri Ved Prakash Rastogi, PGCIL

**For Respondents** : Shri S. Vallinayagam, Advocate, TANGEDCO  
Dr. R. Kathiravan, TANGEDCO  
Shri R. Ramalakshmi, TANGEDCO  
Shri R. Srinivasan, TANGEDCO

### **ORDER**

The Petitioner, Power Grid Corporation of India Limited, a deemed transmission licensee, has filed the instant petition for revision of transmission tariff of 2004-09 and 2009-14 tariff periods and truing up of transmission tariff for 2014-19 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and for determination of tariff for 2019-24 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) in respect of the following assets (hereinafter referred to as the “transmission assets”) under “Augmentation of capacity of Gazuwaka HVDC back to back project (500 MW)”



(hereinafter referred to as the “transmission project”) in Southern Region and Eastern Region:

**Asset-I:** 500 MW HVDC back to back station at Gazuwaka;

**Asset-II:** Vijayawada- Gazuwaka 400 kV D/C Line and 50% FSC Jeypore- Gazuwaka 400 kV S/C transmission line at Jeypore;

**Asset-III:** (a) 40% FSC on Rengali-Indravati 400 kV S/C transmission line; and (b) 40% FSC on Meramundali- Jeypore 400 kV S/C transmission line at Jeypore.

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

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

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

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

*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 recover FERV on the foreign loans deployed as provided under clause 68 of the Tariff Regulations,2019*

*6) Allow the petitioner to adjust the cumulative depreciation by taking into account the depreciation recovered in tariff by the decapitalized asset during its useful life and to recover the unrecovered depreciation amounting to Rs 82.254 Lakh in case of Asset-II and Rs 50.51 Lakh in case of Asset-III separately on account of de-capitalization.*

*7) Allow the petitioner to bill and recover Licensee fee and RLDC fees and*



charges, separately from the respondents in terms of Regulation 70 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.

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

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

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

11) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the respondents, if GST on transmission is levied at any rate in future. Further, any taxes including GST and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.

and pass such other relief as Hon'ble Commission deems fit and appropriate under the circumstances of the case and in the interest of justice.”

### **Background**

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

- a) Investment Approval (IA) for the transmission project was accorded by Ministry of Power vide its letter dated 22.1.2002 at an estimated cost of ₹76925 lakh including IDC of ₹9612 lakh based on 4<sup>th</sup> quarter 2002 price level.
- b) Entire scope of work under the IA is covered in the instant petition. The transmission project includes five assets and they were combined into three assets in the 2009-14 tariff period. The details of the transmission assets under the transmission project are as follows:

<b>Asset</b>	<b>Description</b>	<b>COD</b>	<b>*Nomenclature in 2009-14 period</b>
Asset-1	500 MW HVDC back to back station at Gazuwaka	1.3.2005	Asset-I
Asset-2	Vijayawada-Gazuwaka 400 kV D/C Line	1.3.2005	Asset-II
Asset-3	40% FSC on Rengali-Indravati 400 kV S/C Transmission Line	1.10.2005	Asset-III
Asset-4	40% FSC on Meramundali-Jeypore 400 kV S/C Transmission Line at Jeypore	1.1.2007	Asset-III
Asset-5	50% FSC Jeypore-Gazuwaka 400 kV D/C Transmission Line at	1.1.2007	Asset-II



	Jeypore		
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*\*For revision of transmission tariff of 2004-09 and 2009-14 tariff periods, the nomenclature of assets is Asset-1, Asset-2, Asset-3, Asset-4 and Asset-5 while for the tariff period 2009-14 onwards, the nomenclature of transmission assets is Asset-I, Asset-II and Asset-III.*

- c) Transmission tariff in respect of Asset-1 and Asset-2 from COD to 31.3.2009 was determined vide order dated 23.10.2006 in Petition No. 138/2005. Transmission tariff of Asset-1 and Asset-2 from 1.4.2005 to 31.3.2009 was revised due to additional capitalization incurred during 2005-06 and 2006-07 periods vide order dated 28.8.2008 in Petition No. 40/2008. Transmission tariff of Asset-1 and Asset-2 from 1.4.2007 to 31.3.2009 was revised again due to Additional Capital Expenditure (ACE) incurred in 2007-08 and 2008-09 periods vide order dated 17.6.2010 in Petition No. 23/2010.
- d) Transmission tariff in respect of Asset-3 from COD to 31.3.2009 was determined vide order dated 15.10.2007 in Petition No. 49/2007. Transmission tariff of Asset-3 from 1.4.2006 to 31.3.2009 was revised due to ACE incurred during 2006-07 and 2007-08 periods vide order dated 31.3.2009 in Petition No. 141/2008.
- e) Transmission tariff in respect of Asset-4 and Asset-5 from COD to 31.3.2009 was determined vide order dated 19.5.2008 in Petition No. 103/2007 and the same was revised on account of ACE vide order dated 21.8.2008 in Petition No. 103/2007. Transmission tariff of Asset-4 and Asset-5 from 1.4.2007 to 31.3.2009 was again revised vide order dated 28.8.2009 in Petition No. 104/2009.
- f) Transmission tariff of 2009-14 tariff period in respect of Asset-I, Asset-II and Asset-III was determined vide order dated 11.4.2011 in Petition No. 242/2010. Tariff of 2009-14 period in respect of Asset-I, Asset-II and Asset-III was trued up and tariff for 2014-19 was approved vide order dated 17.12.2015 in Petition No. 509/TT/2014.
- g) The Petitioner has sought revision of transmission tariff allowed for 2004-09 tariff period on account of change in Interest on Loan (IoL) and Interest on Working Capital (IWC) to the extent of revision in IoL and in Maintenance Spares in terms of the judgments of the Appellate Tribunal



for Electricity (“the APTEL”) dated 22.1.2007 in Appeal No. 81 of 2005 and batch matters and dated 13.6.2007 in Appeal No. 139 of 2006 and batch matters. The Petitioner has sought consequential revision of transmission tariff allowed for 2009-14 period, truing up of tariff of 2014-19 period and determination of transmission tariff for 2019-24 period for the transmission assets.

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

<b>Sl. No.</b>	<b>Issue</b>	<b>APTEL’s decisions/ directions</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 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 re-calculate the loan outstanding as on 31.3.2004 based on loan repayment on normative basis
3(a)	O&M Expenses: Inadequate provision of employee costs as part of O&M Expenses due to variation in salary and wages	The Commission’s view upheld
3(b)	O&M Expenses: Non-inclusion of incentives and ex-gratia payment to employees	The Commission’s view upheld
4	Cost of spares for calculation of working capital	The Commission’s view upheld

- i) The 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 decisions of the APTEL are given in the following table:



Sl. No.	Issue	APTEL's decision/ direction
I	Computation of outstanding loan at the beginning of the tariff period i.e. 1.4.2004	The Commission is required to recalculate the loan outstanding as on 31.3.2004 based on loan repayment on normative basis
II	Consequence of refinance of loan	The Commission to consider the issue afresh
III	Treating depreciation available as deemed repayment of loan	The Commission to make a fresh computation of outstanding loan
IV	Admissibility of depreciation up to 90%	The Commission to consider the issue afresh
V	Cost of Maintenance Spares	The Commission to consider the issue afresh
VI	Impact of de-capitalisation of the assets on cumulative repayment of loan	The cumulative repayment of the loan proportionate to the assets decapitalized required to be reduced. The Commission to act accordingly
VII	Non-consideration of normative transit loss for coal import	The Commission to consider afresh the transit losses for coal imported from coal mines other than the dedicated ones
VIII	Foreign Exchange Rate Variation (FERV)	FERV has been kept as pass through to ensure that any liability or gain, if any, arising on account of any variation in foreign exchange rates is passed on to the beneficiary as held in order dated 4.10.2006 in Appeal Nos.135 to 140 of 2005. The Commission to act accordingly
IX	Computation of interest on loan in Singrauli Station	Net loan closing at the end of a year is reflected as net loan opening on the first day of the next year. The Commission shall re-compute the interest accordingly

- j) The Commission and certain interested parties preferred Civil Appeals against the APTEL's judgments before the Hon'ble Supreme Court in 2007. The Appeals were admitted and initially stay was granted by the Hon'ble Supreme Court. Subsequently, on an assurance by NTPC that the issues under Appeal would not be pressed for implementation during the pendency of the Appeals, the stay was vacated by the Hon'ble Supreme Court.
- k) Based on the APTEL's 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, the Petitioner had sought revision of tariff of its transmission assets for 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.

- l) The Hon'ble Supreme Court vide order dated 10.4.2018, dismissed the said Civil Appeals filed against the APTEL's said judgments. Thus, the judgments of the APTEL have attained finality.
- m) Consequent to the Hon'ble Supreme Court's order dated 10.4.2018 in NTPC matters, Petition No. 121/2007 was listed for hearing on 8.1.2019 before the Commission. The Commission vide order dated 18.1.2019 in Petition No. 121/2007, directed the Petitioner to submit its claim separately for the assets at the time of filing of truing up petition for 2014-19 tariff period.
- n) The instant petition was heard on 11.2.2022 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 for 2004-09 and 2009-14 tariff periods. Period-wise transmission tariff is being re-worked based on the Tariff Regulations applicable for the respective tariff periods and suitable assumptions have been made at certain places and applied which are indicated.

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

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 suggestions have been received from the general public in response to the aforesaid notices published in the newspapers. Tamil Nadu Generation and Distribution Corporation (TANGEDCO), Respondent No. 4, has filed its reply vide affidavit dated 14.9.2020. TANGEDCO has raised issue with regard to



maintainability of the Petitioner's claim for retrospective revision of tariff and ACE claimed for 2019-24 period. The Petitioner, vide affidavit dated 13.4.2021 has filed rejoinder to the reply of TANGEDCO. The issues raised by TANGEDCO and the clarifications given by the Petitioner are considered in the relevant portions of this order.

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

6. The APTEL while dealing with the issue of computation of IoL, in judgment dated 22.1.2007 observed that IoL 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 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 revised on the basis of the normative debt repayment methodology.

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

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

**Re: Depreciation**

8. As regards depreciation, the 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 the APTEL, the outstanding loan allowed for the transmission assets for 2004-09 period is revised in the instant order.

9. The revision of tariff allowed for 2004-09 tariff period necessitates the revision of transmission tariff allowed for 2009-14 tariff period which is also being done in the present order. The implementation of the directions the APTEL vide judgments dated 22.1.2007 in Appeal No. 81 of 2005 and batch matters and dated 13.6.2007 in Appeal No. 139 of 2006 and batch cases was kept pending in the case of the Petitioner awaiting outcome of the Civil Appeals filed before the Hon'ble Supreme Court. Taking into consideration the facts of the case and keeping in view the interest of the consumers, we are of the view that the beneficiaries should not be burdened with the carrying cost for the difference in the tariff allowed earlier and allowed in the instant order for 2004-09 and 2009-14 tariff periods. Therefore, we direct that the Petitioner will neither claim nor pay any carrying cost from or to the beneficiaries for the difference, if any, in the tariff allowed earlier and the tariff being allowed in the instant order. Further, the said difference in tariff shall be recovered/ paid over a period of six months from the date of issue of this order.

10. The hearing in this matter was held on 11.2.2022 through video conference and order was reserved.

11. Having heard the representatives of the Petitioner, learned counsel for TANGEDCO 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 vide affidavits dated 18.10.2019, 10.12.2020, 10.5.2021 and 16.11.2021, reply affidavit of TANGEDCO dated 14.9.2020 and the Petitioner's rejoinder to the reply of TANGEDCO filed vide affidavit dated 13.4.2021.

13. It has been placed before us that TANGEDCO has been raising the same issue of retrospective revision of tariff in other petitions as well despite clear findings of the Commission. The contentions of TANGEDCO on retrospective revision of tariff have been rejected by the Commission in various petitions including vide order dated 8.11.2021 in Petition No. 141/TT/2020. As TANGEDCO did not challenge the findings of the Commission, the same have attained finality. Accordingly, the issue of retrospective revision of tariff raised by TANGEDCO is rejected. Other issues raised by TANGEDCO and clarifications thereto given by the Petitioner has been dealt in the relevant paragraphs of the present order.

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

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

14. The Commission vide order dated 23.10.2006 in Petition No. 138/2005 approved transmission charges in respect of the transmission Asset-1 and Asset-2 from COD to 31.3.2009. The Commission revised the transmission charges for Asset-1 and Asset-2 for the period from 1.4.2005 to 31.3.2009 vide order dated 28.8.2008 in Petition No. 40/2008 on account of ACE. The Commission again revised the transmission charges in respect of Asset-1 and Asset-2 for the period from 1.4.2007 to 31.3.2009 vide order dated 17.6.2010 in Petition No. 23/2010. The transmission charges approved for 2004-09 period in respect of Asset-1 and Asset-2 are as follows:



(₹ in lakh)

<b>Asset-1</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	97.47	1255.79	1309.68	1312.34	1312.43
Return on Equity	105.00	1360.55	1423.42	1426.53	1426.63
O&M Expenses	37.49	468.00	486.72	506.08	526.40
Advance against Depreciation	0.00	492.48	609.49	782.05	894.75
Interest on Loan	74.68	911.51	888.23	826.56	750.49
Interest on Working Capital	8.57	115.53	121.68	126.34	129.76
<b>Total</b>	<b>323.21</b>	<b>4603.86</b>	<b>4839.22</b>	<b>4979.90</b>	<b>5040.46</b>

(₹ in lakh)

<b>Asset-2</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	49.34	623.16	650.24	655.46	656.33
Return on Equity	69.03	877.55	919.79	927.20	928.62
O&M Expenses	21.28	265.58	276.55	287.06	299.06
Advance against Depreciation	0.00	0.00	315.70	545.06	695.23
Interest on Loan	110.88	1364.81	1348.75	1266.19	1163.79
Interest on Working Capital	6.44	79.68	87.76	92.26	94.99
<b>Total</b>	<b>256.97</b>	<b>3210.78</b>	<b>3598.79</b>	<b>3773.23</b>	<b>3838.02</b>

15. The Commission vide order dated 15.10.2007 in Petition No. 49/2007 approved the transmission charges in respect of Asset-3 from COD to 31.3.2009. The Commission revised the transmission charges of Asset-3 from 1.4.2006 to 31.3.2009 vide order dated 31.3.2009 in Petition No. 141/2008. The transmission charges approved for 2004-09 period in respect of Asset-3 are as follows:

(₹ in lakh)

<b>Asset-3</b>				
<b>Particulars</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	25.33	54.34	56.76	56.91
Return on Equity	27.85	60.40	63.38	63.55
O&M Expenses	14.63	30.42	31.63	32.90
Advance against Depreciation	0.00	0.00	0.00	15.97
Interest on Loan	39.11	80.90	80.00	75.14
Interest on Working Capital	2.70	5.66	5.86	6.19
<b>Total</b>	<b>109.62</b>	<b>231.72</b>	<b>237.63</b>	<b>250.66</b>

16. The Commission vide orders dated 19.5.2008 and 21.8.2008 in Petition No. 103/2007 approved the transmission charges in respect of the transmission



Asset-4 and Asset-5 from COD to 31.3.2009. Further, the Commission revised the transmission charges of Asset-4 and Asset-5 for the period from 1.4.2007 to 31.3.2009 vide order dated 28.8.2009 in Petition No. 104/2009. The transmission charges approved for 2004-09 period in respect of Asset-4 and Asset-5 are as follows:

(₹ in lakh)

<b>Asset-4</b>			
<b>Particulars</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	14.02	58.14	58.85
Return on Equity	15.22	63.31	64.14
O&M Expenses	7.61	31.63	32.90
Advance against Depreciation	0.00	3.67	5.75
Interest on Loan	22.03	88.34	84.42
Interest on Working Capital	1.49	6.18	6.31
<b>Total</b>	<b>60.37</b>	<b>251.27</b>	<b>252.37</b>

(₹ in lakh)

<b>Asset-5</b>			
<b>Particulars</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	22.59	94.57	97.04
Return on Equity	24.09	101.26	104.14
O&M Expenses	15.21	63.26	65.80
Advance against Depreciation	0.00	2.26	4.03
Interest on Loan	34.65	140.87	137.27
Interest on Working Capital	2.45	10.15	10.43
<b>Total</b>	<b>98.99</b>	<b>412.37</b>	<b>418.71</b>

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

(₹ in lakh)

<b>Asset-1</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	97.47	1255.79	1309.68	1312.34	1312.43
Return on Equity	105.00	1360.55	1423.42	1426.53	1426.63
O&M Expenses	37.49	468.00	486.72	506.08	526.40
Advance against Depreciation	0.00	434.25	614.01	786.97	899.93
Interest on Loan	74.78	913.74	890.31	828.50	752.25
Interest on Working Capital	8.65	120.01	129.23	134.42	138.33
<b>Total</b>	<b>323.40</b>	<b>4552.34</b>	<b>4853.37</b>	<b>4994.84</b>	<b>5055.97</b>



(₹ in lakh)

<b>Asset-2</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	49.34	623.16	650.24	655.46	656.33
Return on Equity	69.03	877.55	919.79	927.20	928.62
O&M Expenses	21.28	265.58	276.55	287.06	299.06
Advance against Depreciation	0.00	0.00	0.00	399.89	736.39
Interest on Loan	110.89	1386.35	1390.17	1304.78	1199.21
Interest on Working Capital	6.47	82.92	87.13	94.99	101.21
<b>Total</b>	<b>257.01</b>	<b>3235.56</b>	<b>3323.88</b>	<b>3669.38</b>	<b>3920.82</b>

(₹ in lakh)

<b>Asset-3</b>				
<b>Particulars</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	25.33	54.34	56.76	56.91
Return on Equity	27.85	60.40	63.38	63.55
O&M Expenses	14.63	30.42	31.63	32.90
Advance against Depreciation	0.00	0.00	0.00	0.00
Interest on Loan	39.50	83.11	83.00	78.36
Interest on Working Capital	2.73	5.91	6.22	6.29
<b>Total</b>	<b>110.04</b>	<b>234.18</b>	<b>240.99</b>	<b>238.01</b>

(₹ in lakh)

<b>Asset-4</b>			
<b>Particulars</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	14.02	58.14	58.85
Return on Equity	15.22	63.31	64.14
O&M Expenses	7.61	31.63	32.90
Advance against Depreciation	0.00	4.11	6.20
Interest on Loan	22.09	88.98	84.99
Interest on Working Capital	1.51	6.38	6.53
<b>Total</b>	<b>60.45</b>	<b>252.54</b>	<b>253.62</b>

(₹ in lakh)

<b>Asset-5</b>			
<b>Particulars</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	22.59	94.57	97.04
Return on Equity	24.09	101.26	104.14
O&M Expenses	15.21	63.26	65.80
Advance against Depreciation	0.00	2.98	4.75
Interest on Loan	34.77	141.87	138.26
Interest on Working Capital	2.47	10.47	10.85
<b>Total</b>	<b>99.13</b>	<b>414.41</b>	<b>420.84</b>

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

- a) Admitted capital cost as on COD and ACE allowed in 2004-09 tariff period for all the transmission assets covered in the instant petition;



- b) Weighted Average Rate of Interest on actual loan adopted from previous orders; and
- c) Weighted Average Rate of Depreciation (WAROD), Rate of Interest for Working Capital and O&M Expenses as per previous orders.

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

(₹ in lakh)

<b>Asset-1</b>					
<b>Particulars</b>	<b>2004-05 (Pro-rata for 1 month)</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	97.47	1255.79	1309.68	1312.34	1312.43
Return on Equity	105.00	1360.55	1423.42	1426.53	1426.63
O&M Expenses	37.49	468	486.72	506.08	526.4
Advance against Depreciation	0.00	434.24	614.01	786.98	899.93
Interest on Loan	74.78	913.74	890.31	828.50	752.25
Interest on Working Capital	8.65	118.18	127.29	132.36	136.15
<b>Total</b>	<b>323.40</b>	<b>4550.51</b>	<b>4851.44</b>	<b>4992.79</b>	<b>5053.79</b>

(₹ in lakh)

<b>Asset-2</b>					
<b>Particulars</b>	<b>2004-05 (Pro-rata for 1 month)</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	49.34	623.16	650.24	655.46	656.33
Return on Equity	69.03	877.55	919.79	927.20	928.62
O&M Expenses	21.28	265.58	276.55	287.06	299.06
Advance against Depreciation	0.00	0.00	0.00	399.90	736.40
Interest on Loan	110.89	1386.35	1390.17	1304.78	1199.21
Interest on Working Capital	6.47	81.66	85.79	93.58	99.72
<b>Total</b>	<b>257.01</b>	<b>3234.30</b>	<b>3322.54</b>	<b>3667.97</b>	<b>3919.33</b>

(₹ in lakh)

<b>Asset-3</b>				
<b>Particulars</b>	<b>2005-06 (pro-rata for 6 months)</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	25.33	54.34	56.76	56.91
Return on Equity	27.85	60.40	63.38	63.55
O&M Expenses	14.63	30.42	31.63	32.9
Advance against Depreciation	0.00	0.00	0.00	0.00
Interest on Loan	39.50	83.11	83.00	78.36
Interest on Working Capital	2.73	5.87	6.17	6.24
<b>Total</b>	<b>110.04</b>	<b>234.14</b>	<b>240.94</b>	<b>237.97</b>





(₹ in lakh)

<b>Asset-4</b>			
<b>Particulars</b>	<b>2006-07 (pro-rata for 3 months)</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	14.02	58.14	58.85
Return on Equity	15.22	63.31	64.14
O&M Expenses	7.61	31.63	32.90
Advance against Depreciation	0.00	4.11	6.20
Interest on Loan	22.09	88.98	84.99
Interest on Working Capital	1.51	6.30	6.46
<b>Total</b>	<b>60.45</b>	<b>252.47</b>	<b>253.54</b>

(₹ in lakh)

<b>Asset-5</b>			
<b>Particulars</b>	<b>2006-07 (pro-rata for 3 months)</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	22.59	94.57	97.04
Return on Equity	24.09	101.26	104.14
O&M Expenses	15.21	63.26	65.80
Advance against Depreciation	0.00	2.98	4.74
Interest on Loan	34.77	141.87	138.26
Interest on Working Capital	2.47	10.35	10.72
<b>Total</b>	<b>99.12</b>	<b>414.29</b>	<b>420.72</b>

20. The Annual Fixed Charges (AFC) allowed for 2004-09 tariff period through various orders, namely, orders dated 23.10.2006 in Petition No. 138/2005, dated 28.8.2008 in Petition No. 40/2008, dated 17.6.2010 in Petition No. 23/2010, dated 15.10.2007 in Petition No. 49/2007, dated 31.3.2009 in Petition No. 141/2008, dated 19.5.2008 and 21.8.2008 in Petition No. 103/2007 and dated 28.8.2009 in Petition No. 104/2009, revised AFC claimed in the instant petition and AFC allowed in the instant order are as follows:

(₹ in lakh)

<b>Asset</b>	<b>Particulars</b>	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Asset-1	AFC approved vide order dated 23.10.2006 in Petition No. 138/2005, order dated 28.8.2008 in Petition No. 40/2008 and order dated 17.6.2010 in Petition No. 23/2010	323.21	4603.86	4839.22	4979.90	5040.46



Asset	Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
	AFC claimed by the Petitioner in the instant petition	323.40	4552.34	4853.37	4994.84	5055.97
	AFC allowed in the instant order	323.40	4550.51	4851.44	4992.79	5053.79
Asset-2	AFC approved vide order dated 23.10.2006 in Petition No. 138/2005, order dated 28.8.2008 in Petition No. 40/2008 and order dated 17.6.2010 in Petition No. 23/2010	256.97	3210.78	3598.79	3773.23	3838.02
	AFC claimed by the Petitioner in the instant petition	257.01	3235.56	3323.88	3669.38	3920.82
	AFC allowed in the instant order	257.01	3234.30	3322.54	3667.97	3919.33
Asset-3	AFC approved vide order dated 15.10.2007 in Petition No. 49/2007 and order dated 31.3.2009 in Petition No. 141/2008	-	109.62	231.72	237.63	250.66
	AFC claimed by the Petitioner in the instant petition	-	110.04	234.18	240.99	238.01
	AFC allowed in the instant order	-	110.04	234.14	240.94	237.97
Asset-4	AFC approved vide orders dated 19.5.2008 and 21.8.2008 in Petition No. 103/2007 and order dated 28.8.2009 in Petition No. 104/2009	-	-	60.37	251.27	252.37
	AFC claimed by the Petitioner in the instant petition	-	-	60.45	252.54	253.62
	AFC allowed in the instant order	-	-	60.32	251.92	252.97
Asset-5	AFC approved vide orders dated 19.5.2008 and 21.8.2008 in Petition No.	-	-	98.99	412.37	418.71



Asset	Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
	103/2007 and order dated 28.8.2009 in Petition No. 104/2009					
	AFC claimed by the Petitioner in the instant petition	-	-	99.13	414.41	420.84
	AFC allowed in the instant order	-	-	99.12	414.29	420.72

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

21. The Commission vide order dated 11.4.2011 in Petition No. 242/2010 approved the transmission tariff in respect of the transmission assets for 2009-14 period and vide order dated 17.12.2015 in Petition No. 509/TT/2014 trued up the tariff allowed for 2009-14 period. The details of the tariff allowed in respect of the transmission assets are as follows:

(₹ in lakh)

Asset-I					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	1930.04	1930.04	1930.04	1930.04	1930.04
Return on Equity	1902.92	1972.62	1974.55	1974.55	1998.30
O&M Expenses	443.00	468.00	495.00	523.00	553.00
Interest on Loan	524.48	474.55	566.96	462.55	333.92
Interest on Working Capital	112.98	114.64	117.96	117.18	116.50
<b>Total</b>	<b>4913.41</b>	<b>4959.85</b>	<b>5084.51</b>	<b>5007.33</b>	<b>4931.75</b>

(₹ in lakh)

Asset-II					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	1444.11	1445.25	1446.86	1447.34	1449.77
Return on Equity	1378.67	1430.42	1433.60	1434.12	1454.07
O&M Expenses	511.77	541.10	572.08	604.77	639.23
Interest on Loan	1188.22	1074.18	963.43	845.23	728.69
Interest on Working Capital	109.20	109.39	108.73	107.92	107.69
<b>Total</b>	<b>4631.95</b>	<b>4600.34</b>	<b>4524.70</b>	<b>4439.39</b>	<b>4379.45</b>

(₹ in lakh)

Asset-III					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	170.52	171.90	173.87	174.45	177.40
Return on Equity	170.32	178.09	180.43	181.07	186.53
O&M Expenses	104.80	110.80	117.14	123.84	130.92
Interest on Loan	147.47	135.62	124.55	111.24	100.24
Interest on Working Capital	15.42	15.66	15.84	15.92	16.22
<b>Total</b>	<b>608.53</b>	<b>612.07</b>	<b>611.83</b>	<b>606.52</b>	<b>611.30</b>



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

(₹ in lakh)

Asset-I					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	1930.04	1930.04	1930.04	1930.04	1930.04
Return on Equity	1902.92	1972.62	1974.55	1974.55	1998.30
O&M Expenses	443.00	468.00	495.00	523.00	553.00
Interest on Loan	525.77	475.86	568.76	464.26	335.39
Interest on Working Capital	113.00	114.67	117.99	117.22	116.53
<b>Total</b>	<b>4914.73</b>	<b>4961.19</b>	<b>5086.34</b>	<b>5009.07</b>	<b>4933.26</b>

(₹ in lakh)

Asset-II					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	1444.11	1445.25	1446.86	1447.34	1449.77
Return on Equity	1378.67	1430.42	1433.60	1434.12	1454.07
O&M Expenses	511.77	541.10	572.08	604.77	639.23
Interest on Loan	1222.98	1108.99	998.39	880.12	763.50
Interest on Working Capital	109.92	110.12	109.46	108.65	108.41
<b>Total</b>	<b>4667.45</b>	<b>4635.88</b>	<b>4560.39</b>	<b>4475.00</b>	<b>4414.98</b>

(₹ in lakh)

Asset-III					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	170.52	171.90	173.87	174.45	177.40
Return on Equity	170.32	178.09	180.43	181.07	186.53
O&M Expenses	104.80	110.80	117.14	123.84	130.92
Interest on Loan	151.16	139.31	128.25	114.94	103.93
Interest on Working Capital	15.50	15.74	15.92	16.00	16.30
<b>Total</b>	<b>612.30</b>	<b>615.84</b>	<b>615.61</b>	<b>610.30</b>	<b>615.08</b>

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

- Admitted capital cost of ₹36851.61 lakh for Asset-I, ₹27333.75 lakh for Asset-II and ₹3270.24 lakh for Asset-III as on 1.4.2009;
- ACE of ₹43.09 lakh, ₹18.07 lakh and ₹92.01 lakh for 2010-11, 2011-12 and 2013-14 period for Asset-II and ACE of ₹52.55 lakh, ₹21.93 lakh and ₹111.62 lakh 2010-11, 2011-12 and 2013-14 period for Asset-III;
- Weighted Average Rate of Interest on actual loan derived/adopted from order dated 17.12.2015 in Petition No. 509/TT/2014, and
- WAROD as per order 17.12.2015 in Petition No. 509/TT/2014.



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

(₹ in lakh)

Asset-I					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	1930.04	1930.04	1930.04	1930.04	1930.04
Return on Equity	1902.92	1972.62	1974.55	1974.55	1998.30
O&M Expenses	443.00	468.00	495.00	523.00	553.00
Interest on Loan	525.77	475.86	568.76	464.26	335.39
Interest on Working Capital	113.00	114.67	117.99	117.22	116.53
<b>Total</b>	<b>4914.73</b>	<b>4961.19</b>	<b>5086.34</b>	<b>5009.07</b>	<b>4933.25</b>

(₹ in lakh)

Asset-II					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	1444.11	1445.25	1446.86	1447.34	1449.77
Return on Equity	1378.67	1430.42	1433.60	1434.12	1454.08
O&M Expenses	511.77	541.10	572.08	604.77	639.23
Interest on Loan	1222.98	1108.99	998.39	880.12	763.50
Interest on Working Capital	109.92	110.12	109.46	108.65	108.41
<b>Total</b>	<b>4667.45</b>	<b>4635.88</b>	<b>4560.38</b>	<b>4475.01</b>	<b>4414.99</b>

(₹ in lakh)

Asset-III					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	170.52	171.90	173.87	174.45	177.40
Return on Equity	170.33	178.09	180.43	181.07	186.53
O&M Expenses	104.80	110.80	117.14	123.84	130.92
Interest on Loan	151.16	139.31	128.25	114.94	103.93
Interest on Working Capital	15.50	15.74	15.92	16.00	16.30
<b>Total</b>	<b>612.30</b>	<b>615.84</b>	<b>615.61</b>	<b>610.30</b>	<b>615.08</b>

25. AFC allowed in respect of the transmission assets for 2009-14 tariff period vide order dated 17.12.2015 in Petition No. 509/TT/2014, revised AFC claimed in the instant petition and AFC allowed in the instant order are as follows:

(₹ in lakh)

Asset	Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Asset-I	AFC approved vide order dated 17.12.2015 in Petition No. 509/TT/2014	4913.41	4959.85	5084.51	5007.33	4931.75
	AFC claimed by the Petitioner in the instant petition	4914.73	4961.19	5086.34	5009.07	4933.26
	AFC allowed in the instant order	4914.73	4961.19	5086.34	5009.07	4933.25



Asset-II	AFC approved vide order dated 17.12.2015 in Petition No. 509/TT/2014	4631.95	4600.34	4524.70	4439.39	4379.45
	AFC claimed by the Petitioner in the instant petition	4667.45	4635.88	4560.39	4475.00	4414.98
	AFC allowed in the instant order	4667.45	4635.88	4560.38	4475.01	4414.99
Asset-III	AFC approved vide order dated 17.12.2015 in Petition No. 509/TT/2014	608.53	612.07	611.83	606.52	611.30
	AFC claimed by the Petitioner in the instant petition	612.30	615.84	615.61	610.30	615.08
	AFC allowed in the instant order	612.30	615.84	615.61	610.30	615.08

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

26. The details of the trued-up transmission charges claimed by the Petitioner in respect of the transmission assets are as follows:

(₹ in lakh)

<b>Asset-I</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	1930.05	1930.05	1930.05	746.40	746.40
Interest on Loan	250.54	178.73	167.28	202.84	142.02
Return on Equity	1999.82	2009.00	2007.98	2007.98	2013.38
Interest on Working Capital	128.16	129.42	132.01	108.73	110.82
O&M Expenses	578.00	627.00	679.00	736.00	797.00
<b>Total</b>	<b>4886.57</b>	<b>4874.20</b>	<b>4916.32</b>	<b>3801.95</b>	<b>3809.62</b>

(₹ in lakh)

<b>Asset-II</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	1452.19	1452.19	1452.19	1452.19	1452.19
Interest on Loan	646.41	526.01	405.95	285.49	169.85
Return on Equity	1457.89	1464.58	1463.84	1463.84	1467.77
Interest on Working Capital	114.15	112.61	110.93	109.30	107.91
O&M Expenses	584.35	603.91	623.88	644.59	665.97
<b>Total</b>	<b>4254.99</b>	<b>4159.30</b>	<b>4056.79</b>	<b>3955.41</b>	<b>3863.69</b>

(₹ in lakh)

<b>Asset-III</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	180.34	180.34	180.34	180.34	180.34



<b>Asset-III</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 Loan	92.66	78.12	63.68	49.46	36.12
Return on Equity	189.95	190.83	190.73	190.73	191.24
Interest on Working Capital	17.32	17.22	17.12	17.03	16.97
O&M Expenses	120.60	124.60	128.74	133.02	137.42
<b>Total</b>	<b>600.87</b>	<b>591.11</b>	<b>580.61</b>	<b>570.58</b>	<b>562.09</b>

27. The details of trued up Interest on Working Capital (IWC) claimed by the Petitioner in respect of the transmission assets are as follows:

(₹ in lakh)

<b>Asset-I</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
O&M Expenses	48.17	52.25	56.58	61.33	66.42
Maintenance Spares	86.70	94.05	101.85	110.40	119.55
Receivables	814.43	812.37	819.39	633.66	634.94
<b>Total</b>	<b>949.30</b>	<b>958.67</b>	<b>977.82</b>	<b>805.39</b>	<b>820.91</b>
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
<b>Interest on Working Capital</b>	<b>128.16</b>	<b>129.42</b>	<b>132.01</b>	<b>108.73</b>	<b>110.82</b>

(₹ in lakh)

<b>Asset-II</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
O&M Expenses	48.70	50.33	51.99	53.72	55.50
Maintenance Spares	87.65	90.59	93.58	96.69	99.90
Receivables	709.17	693.22	676.13	659.24	643.95
<b>Total</b>	<b>845.52</b>	<b>834.14</b>	<b>821.70</b>	<b>809.65</b>	<b>799.35</b>
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
<b>Interest on Working Capital</b>	<b>114.15</b>	<b>112.61</b>	<b>110.93</b>	<b>109.30</b>	<b>107.91</b>

(₹ in lakh)

<b>Asset-III</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
O&M Expenses	10.05	10.38	10.73	11.09	11.45
Maintenance Spares	18.09	18.69	19.31	19.95	20.61
Receivables	100.15	98.52	96.77	95.10	93.68
<b>Total</b>	<b>128.29</b>	<b>127.59</b>	<b>126.81</b>	<b>126.14</b>	<b>125.74</b>
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
<b>Interest on Working Capital</b>	<b>17.32</b>	<b>17.22</b>	<b>17.12</b>	<b>17.03</b>	<b>16.97</b>

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

28. Capital cost of the transmission assets has been calculated in accordance with Regulation 9(3) and Regulation 9(6) of the 2014 Tariff Regulations.



29. The Commission vide order dated 17.12.2015 in Petition No. 509/TT/2014 approved the transmission tariff for 2014-19 period based on admitted capital cost of ₹36851.61 lakh for Asset-I, ₹27486.92 lakh for Asset-II and ₹3456.34 lakh for Asset-III as on 1.4.2014. Accordingly, the capital cost of ₹36851.61 lakh for Asset-I, ₹27486.92 lakh for Asset-II and ₹3456.34 lakh for Asset-III has been considered as capital cost as on 1.4.2014 for 2014-19 tariff period.

30. The Petitioner has not claimed any ACE during 2014-19 tariff period.

### **De-capitalization**

31. The Petitioner in its affidavit dated 16.11.2021 has submitted that the Commission vide order dated 17.5.2021 in Petition No. 59/TT/2020 directed the Petitioner to decapitalize two numbers of 63 MVAR reactors from the instant transmission project and re-capitalize the cost of reactors in the project where they were shifted, i.e. "Removal of Constraints in 400 kV Bay extensions at 400 kV Vemagiri Sub-station". The relevant portion of the order dated 17.5.2021 in Petition No. 59/TT/2020 is as follows:

*"17. In the instant case, the petitioner has shifted the two 63 MVAR Reactors from Gazuwaka to Vemagiri and utilized these reactors on Simhadri-Vemagiri 400 kV D/C Transmission Line. Though the Petitioner has shifted the Reactors, the tariff and capital cost of these two reactors continued to be recovered under Augmentation of capacity of Gazuwaka HVDC back to back project (500 MW) Southern and Eastern Regions. In view of the Commission's order dated 28.9.2017 in Petition No. 195/TT/2016 and similar other matters, the petitioner is directed to de-capitalize the two 63 MVAR Reactors from Augmentation of capacity of Gazuwaka HVDC back to back project (500 MW) Southern and Eastern Regions and re-capitalize the cost of the reactors in the instant transmission project. Accordingly, the Petitioner is granted liberty in the instant petition to re-capitalise the two reactors in the transmission project and claim tariff for the transmission project afresh."*

32. The Petitioner vide affidavit dated 16.11.2021 has further submitted that the actual date of removal of reactors from Gazuwaka is 24.6.2017 and the same have been installed and put under commercial operation w.e.f. 29.3.2018. Accordingly, the reactors are de-capitalized in the instant transmission project





w.e.f. 24.6.2017 i.e. from the original date of removal. The Petitioner has submitted the revised Auditor's Certificate dated 15.11.2021 and tariff forms in respect of Asset-2 for 2014-19 and 2019-24 tariff periods. It is found in the Auditor's Certificate that the cost of de-capitalization of two 63 MVAR reactors from the instant transmission project has been deducted from the capital cost in the financial year 2021-22. The details of decapitalization as submitted in Form-10B are as follows:

Year of De-capitalization	Work/Equipment proposed to be de-capitalized	Year of capitalization of the asset/equipment being decapitalized	Original book value of asset being decapitalized (₹ in lakh)	Debt Equity ratio at the time of capitalization	Cumulative Depreciation corresponding to decapitalization (₹ in lakh)	Cumulative Repayment corresponding to decapitalization (₹ in lakh)
2017-18	2 Numbers of line reactors at Gazuwaka	2006-07	619.62	73:27	358.80	360.31
2022-23	Control and Protection System of FSC	2006-07	379.76	73:27	257.32	258.66

33. We have considered the submissions of the Petitioner. The details of de-capitalization considered in respect of two 63 MVAR reactors from transmission project in the instant petition for truing up of tariff for 2014-19 period are as follows:

Year of decapitalization	Date of decapitalization	Work/Equipment proposed to be de-capitalized	Year of capitalization of the asset/equipment being decapitalized	Original book value of asset being decapitalized (₹ in lakh)	Debt Equity ratio at the time of capitalization	Cumulative Depreciation corresponding to decapitalization (₹ in lakh)	Cumulative Repayment corresponding to decapitalization (₹ in lakh)
2017-18	24.6.2017	2 Number of Line reactors at Gazuwaka	2006-07	619.62	73:27	358.80	360.31



### Capital Cost considered for true up of tariff for 2014-19 period

34. Accordingly, the capital cost considered for truing up of tariff of 2014-19 tariff period is as follows:

(₹ in lakh)

Asset	Capital Cost as on 1.4.2014	ACE during 2014-19	Decapitalization during 2014-19	Capital Cost as on 31.3.2019
	1	2	3	4=1+2-3
Asset-I	36851.61	0.00	0.00	36851.61
Asset-II	27486.92	0.00	619.62	26867.30
Asset-III	3456.34	0.00	0.00	3456.34

### Debt-Equity Ratio

35. Debt-equity ratio has been allowed in accordance with Regulation 19(3) of the 2014 Tariff Regulations. As per Regulation 19(3) of the 2014 Tariff Regulations, debt-equity ratio allowed by the Commission for determination of tariff for the period ending on 31.3.2014 shall be considered. Accordingly, the admitted debt-equity ratio for the period ending on 31.3.2014 has been considered for the purpose of truing up of tariff of 2014-19 period.

36. Accordingly, the details of debt-equity ratio as on 1.4.2014 and 31.3.2019 in respect of the transmission assets are as follows:

Asset	Particulars	As on 1.4.2014		As on 31.3.2019	
		Capital cost (₹ in lakh)	(in %)	Capital cost (₹ in lakh)	(in %)
Asset-I	Debt	26661.42	72.35	26661.42	72.35
	Equity	10190.19	27.65	10190.19	27.65
	<b>Total</b>	<b>36851.61</b>	<b>100.00</b>	<b>36851.61</b>	<b>100.00</b>
Asset-II	Debt	20058.16	72.97	19605.84	72.97
	Equity	7428.76	27.03	7261.46	27.03
	<b>Total</b>	<b>27486.92</b>	<b>100.00</b>	<b>26867.30</b>	<b>100.00</b>
Asset-III	Debt	2488.42	72.00	2488.42	72.00
	Equity	967.92	28.00	967.92	28.00
	<b>Total</b>	<b>3456.34</b>	<b>100.00</b>	<b>3456.34</b>	<b>100.00</b>

37. Regulation 9(6) of the 2014 Tariff Regulations provides as follows:

*“(6) The following shall be excluded or removed from the capital cost of the existing and new project:*



- (a) The assets forming part of the project, but not in use;
- (b) Decapitalisation of Asset;
- (c) In case of hydro generating station 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 two stage transparent process of bidding; and
- (d) the proportionate cost of land which is being used for generating power from generating station based on renewable energy:

*Provided that 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 shall be excluded from the Capital Cost for the purpose of computation of interest on loan, return on equity and depreciation;”*

38. As per Regulation 9(6) of the 2014 Tariff Regulations, the transmission asset not in use has to be excluded from the capital cost of the existing project. In the instant case, the reactors from Gazuwaka were removed on 24.6.2017 from Asset-II and therefore decapitalised in accordance with Regulation 9(6) of the 2014 Tariff Regulations and transmission charges are not allowed for decapitalized asset from 24.6.2017. Hence, the tariff for Asset-II has been split into two parts in 2017-18.

### **Depreciation**

39. Depreciation has been allowed as per the methodology provided in Regulation 27 of the 2014 Tariff Regulations. The Gross Block during 2014-19 tariff period has been depreciated at Weighted Average Rate of Depreciation (WAROD) and working of WAROD is given at Annexure-I. WAROD has been worked out after taking into account the depreciation rates of assets as prescribed in the 2014 Tariff Regulations and depreciation allowed during tariff period 2014-19. Depreciation has been allowed considering capital expenditure as on 1.4.2014 and approved ACE during 2014-19 tariff period. Asset-I has completed 12 years of life as on 31.3.2017, the remaining depreciable value of ₹9703.26 lakh has been spread across the balance useful life of 13 years in accordance with Regulation 27(5) of the 2014 Tariff Regulations. Depreciation



allowed during 2014-19 period in respect of the transmission assets are as follows:

(₹ in lakh)

Asset-I						
Particulars		2014-15	2015-16	2016-17	2017-18	2018-19
A	Opening Gross Block	36851.61	36851.61	36851.61	36851.61	36851.61
B	Addition during 2014-19 due to ACE	0.00	0.00	0.00	0.00	0.00
C	Closing Gross Block (A+B)	36851.61	36851.61	36851.61	36851.61	36851.61
D	Average Gross Block (A+C)/2	36851.61	36851.61	36851.61	36851.61	36851.61
E	Weighted Average Rate of Depreciation (in %)	5.24	5.24	5.24	2.03	2.03
F	Balance useful life of the asset at the beginning of the year (Year)	16.00	15.00	14.00	13.00	12.00
G	Lapsed life at the beginning of the year (Year)	9.00	10.00	11.00	12.00	13.00
H	Aggregated Depreciable Value (D*90%)	33166.45	33166.45	33166.45	33166.45	33166.45
I	<b>Depreciation during the year (D*E)</b>	<b>1930.04</b>	<b>1930.04</b>	<b>1930.04</b>	<b>746.40</b>	<b>746.40</b>
J	Cumulative Depreciation at the end of the year	19603.11	21533.15	23463.19	24209.60	24956.00
K	Remaining Aggregate Depreciable Value at the end of the year (H-J)	13563.34	11633.30	9703.26	8956.85	8210.45

(₹ in lakh)

Asset-II							
Particulars		2014-15	2015-16	2016-17	1.4.2017 to 23.6.2017	24.6.2017 to 31.3.2018	2018-19
A	Opening Gross Block	27486.92	27486.92	27486.92	27486.92	26867.30*	26867.30
B	Addition during 2014-19 due to ACE	0.00	0.00	0.00	0.00	0.00	0.00
C	Closing Gross Block	27486.92	27486.92	27486.92	27486.92	26867.30	26867.30
D	Average Gross Block	27486.92	27486.92	27486.92	27486.92	26867.30	26867.30
E	Weighted Average	5.28	5.28	5.28	5.28	5.28	5.28



Asset-II							
Particulars		2014-15	2015-16	2016-17	1.4.2017 to 23.6.2017	24.6.2017 to 31.3.2018	2018-19
	Rate of Depreciation (in %)						
F	Balance useful life of the asset at the beginning of the year (Year)	26.00	25.00	24.00		23.00	22.00
G	Lapsed life at the beginning of the year (Year)	7.00	8.00	9.00		10.00	11.00
H	Aggregated Depreciable Value	24738.23	24738.23	24738.23	24738.23	24180.57	24180.57
I	Cumulative Depreciation at the beginning of the year	11226.07	12678.27	14130.46	15582.66	15557.86	16649.98
J	Depreciation during the year	1452.20	1452.20	1452.20	334.00	1092.12	1419.48
K	Cumulative Depreciation at the end of the year	12678.27	14130.46	15582.66	15916.66	16649.98	18069.46
L	Remaining Aggregate Depreciable Value at the end of the year	12059.96	10607.77	9155.57	8821.57	7530.59	5752.31

\*(Closing capital cost as on 23.6.2017 less decapitalization i.e. ₹27486.92 lakh-₹619.62 lakh)



(₹ in lakh)

		Asset-III				
Particulars		2014-15	2015-16	2016-17	2017-18	2018-19
A	Opening Gross Block	3456.34	3456.34	3456.34	3456.34	3456.34
B	Addition during 2014-19 due to ACE	0.00	0.00	0.00	0.00	0.00
C	Closing Gross Block (A+B)	3456.34	3456.34	3456.34	3456.34	3456.34
D	Average Gross Block (A+C)/2	3456.34	3456.34	3456.34	3456.34	3456.34
E	Weighted Average Rate of Depreciation (in %)	5.22	5.22	5.22	5.22	5.22
F	Balance useful life of the asset at the beginning of the year (Year)	18.00	17.00	16.00	15.00	14.00
G	Lapsed life at the beginning of the year (Year)	7.00	8.00	9.00	10.00	11.00
H	Aggregated Depreciable Value (D*90%)	3108.37	3108.37	3108.37	3108.37	3108.37
I	<b>Depreciation during the year (D*E)</b>	<b>180.34</b>	<b>180.34</b>	<b>180.34</b>	<b>180.34</b>	<b>180.34</b>
J	Cumulative Depreciation at the end of the year	1383.14	1563.48	1743.83	1924.17	2104.51
K	Remaining Aggregate Depreciable Value at the end of the year (H-J)	1725.22	1544.88	1364.54	1184.20	1003.86

40. The details of depreciation allowed *vide* order dated 17.12.2015 in Petition No. 509/TT/2014 in respect of the transmission assets, claimed by Petitioner in the instant petition and trued-up depreciation allowed in the instant order are as follows:

(₹ in lakh)

Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-I	Allowed <i>vide</i> order dated 17.12.2015 in Petition No. 509/TT/2014	1930.04	1930.04	1930.04	743.05	743.05
	Claimed by the Petitioner in the instant petition	1930.05	1930.05	1930.05	746.40	746.40
	Allowed after true-up in this order	1930.04	1930.04	1930.04	746.40	746.40
Asset-II	Allowed in order dated 17.12.2015 in Petition No. 509/TT/2014	1452.20	1452.20	1452.20	1452.20	1452.20
	Claimed by the Petitioner in the instant petition	1452.19	1452.19	1452.19	1435.84	1419.48
	Allowed after true-up in this order	1452.20	1452.20	1452.20	1426.12	1419.48



Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-III	Allowed in order dated 17.12.2015 in Petition No. 509/TT/2014	180.34	180.34	180.34	180.34	180.34
	Claimed by the Petitioner in the instant petition	180.34	180.34	180.34	180.34	180.34
	Allowed after true-up in this order	180.34	180.34	180.34	180.34	180.34

### **Interest on Loan (“IoL”)**

41. The Petitioner has claimed the weighted average rate of IoL based on its actual loan portfolio and rate of interest. Accordingly, IoL is calculated based on actual interest rate, in accordance with Regulation 26 of the 2014 Tariff Regulations. The details of IoL allowed in respect of the transmission assets are as follows:

(₹ in lakh)

Asset-I						
Particulars		2014-15	2015-16	2016-17	2017-18	2018-19
A	Gross Normative Loan	26661.42	26661.42	26661.42	26661.42	26661.42
B	Cumulative Repayments upto Previous Year	17673.07	19603.11	21533.15	23463.19	24209.60
C	Net Loan-Opening (A-B)	8988.35	7058.31	5128.27	3198.23	2451.82
D	Addition due to ACE	0.00	0.00	0.00	0.00	0.00
E	Repayment during the year	1930.04	1930.04	1930.04	746.40	746.40
F	Net Loan-Closing (C+D-E)	7058.31	5128.27	3198.23	2451.82	1705.42
G	Average Loan (C+F)/2	8023.33	6093.29	4163.25	2825.03	2078.62
H	Weighted Average Rate of Interest on Loan (in %)	3.123	2.933	4.018	7.180	6.833
I	<b>Interest on Loan (G*H)</b>	<b>250.54</b>	<b>178.74</b>	<b>167.28</b>	<b>202.84</b>	<b>142.03</b>

(₹ in lakh)

Asset-II							
Particulars		2014-15	2015-16	2016-17	1.4.2017 to 23.6.2017	24.6.2017 to 31.3.2018	2018-19
A	Gross Normative Loan	20058.16	20058.16	20058.16	20058.16	19605.84	19605.84
B	Cumulative Repayments upto Previous Year	11287.22	12739.42	14191.61	15643.81	15283.50	16709.62
C	Net Loan-	8770.94	7318.74	5866.55	4414.35	4322.34	2896.22



Asset-II						
Particulars	2014-15	2015-16	2016-17	1.4.2017 to 23.6.2017	24.6.2017 to 31.3.2018	2018-19
Opening (A-B)						
D Addition due to ACE	0.00	0.00	0.00	0.00	0.00	0.00
E Repayment during the year	1452.20	1452.20	1452.20	334.00	1092.12	1419.48
F Net Loan-Closing (C+D-E)	7318.74	5866.55	4414.35	4080.35	3230.22	1476.74
G Average Loan (C+F)/2	8044.84	6592.65	5140.45	4247.35	3776.28	2186.48
H Weighted Average Rate of Interest on Loan (in %)	8.035	7.979	7.897	7.741	7.741	7.596
<b>I Interest on Loan (G*H)</b>	<b>646.41</b>	<b>526.01</b>	<b>405.95</b>	<b>75.66</b>	<b>225.03</b>	<b>166.08</b>

(₹ in lakh)

Asset-III						
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19	
A Gross Normative Loan	2488.42	2488.42	2488.42	2488.42	2488.42	
B Cumulative Repayments upto Previous Year	1220.73	1401.07	1581.41	1761.76	1942.10	
C Net Loan-Opening (A-B)	1267.69	1087.35	907.01	726.66	546.32	
D Addition due to ACE	0.00	0.00	0.00	0.00	0.00	
E Repayment during the year	180.34	180.34	180.34	180.34	180.34	
F Net Loan-Closing (C+D-E)	1087.35	907.01	726.66	546.32	365.98	
G Average Loan (C+F)/2	1177.52	997.18	816.83	636.49	456.15	
H Weighted Average Rate of Interest on Loan (in %)	7.869	7.834	7.796	7.770	7.917	
<b>I Interest on Loan (G*H)</b>	<b>92.66</b>	<b>78.12</b>	<b>63.68</b>	<b>49.46</b>	<b>36.11</b>	

42. The details of IoL allowed vide order dated 17.12.2015 in Petition No. 509/TT/2014 in respect of the transmission assets, claimed by Petitioner in the instant petition and trued-up IoL allowed in the instant order are as follows:

(₹ in lakh)						
Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-I	Allowed in order dated 17.12.2015 in Petition No. 509/TT/2014	262.69	214.27	185.04	199.83	139.33





Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
	Claimed by the Petitioner in the instant petition	250.54	178.73	167.28	202.84	142.02
	Allowed after true-up in this order	250.54	178.74	167.28	202.84	142.03
Asset-II	Allowed in order dated 17.12.2015 in Petition No. 509/TT/2014	611.74	491.59	371.88	252.10	137.08
	Claimed by the Petitioner in the instant petition	646.41	526.01	405.95	282.56	165.34
	Allowed after true-up in this order	646.41	526.01	405.95	300.70	166.08
Asset-III	Allowed in order dated 17.12.2015 in Petition No. 509/TT/2014	88.97	74.46	60.04	45.83	32.42
	Claimed by the Petitioner in the instant petition	92.66	78.12	63.68	49.46	36.12
	Allowed after true-up in this order.	92.66	78.12	63.68	49.46	36.11

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

43. The Petitioner has claimed RoE in respect of the transmission assets 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 the following effective tax rates for 2014-19 tariff period:

Year	Claimed effective tax rate (in %)	Grossed up RoE (in %) [(Base Rate)/(1-t)]
2014-15	21.018	19.624
2015-16	21.382	19.624
2016-17	21.338	19.715
2017-18	21.337	19.704
2018-19	21.549	19.704

44. The Commission vide order dated 27.4.2020 in Petition No. 274/TT/2019 has arrived at the effective tax rate based on the notified MAT rates for the Petitioner and the same is as follows:



Year	Notified MAT rates (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

45. MAT rates considered in Petition No. 274/TT/2019 are considered for the purpose of grossing up of rate of RoE for truing up of the tariff of 2014-19 tariff period in terms of the provisions of the 2014 Tariff Regulations, which are as follows:

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

46. Accordingly, RoE allowed in respect of the transmission assets is as follows:

(₹ in lakh)

Asset-I						
Particulars		2014-15	2015-16	2016-17	2017-18	2018-19
A	Opening Equity	10190.19	10190.19	10190.19	10190.19	10190.19
B	Addition due to ACE	0.00	0.00	0.00	0.00	0.00
C	Closing Equity (A+B)	10190.19	10190.19	10190.19	10190.19	10190.19
D	Average Equity (A+C)/2	10190.19	10190.19	10190.19	10190.19	10190.19
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	MAT rate for the respective Financial year (in %)	20.961	21.342	21.342	21.342	21.549
G	Rate of Return on Equity (Pre-tax) (in %)	19.610	19.705	19.705	19.705	19.758
H	Return on Equity (Pre-tax) (D*G)	1998.30	2007.98	2007.98	2007.98	2013.38

(₹ in lakh)

Asset-II						
Particulars	2014-15	2015-16	2016-17	1.4.2017 to 23.6.2017	24.6.2017 to 31.3.2018	2018-19
A	Opening Equity	7428.76	7428.76	7428.76	7428.76	7261.46



Asset-II						
Particulars	2014-15	2015-16	2016-17	1.4.2017 to 23.6.2017	24.6.2017 to 31.3.2018	2018-19
B	Addition due to ACE	0.00	0.00	0.00	0.00	0.00
C	Closing Equity (A+B)	7428.76	7428.76	7428.76	7428.76	7261.46
D	Average Equity (A+C)/2	7428.76	7428.76	7428.76	7428.76	7261.46
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	MAT rate for the respective Financial year (in %)	20.961	21.342	21.342	21.342	21.549
G	Rate of Return on Equity (Pre-tax) (in %)	19.610	19.705	19.705	19.705	19.758
H	<b>Return on Equity (Pre-tax) (D*G)</b>	<b>1456.78</b>	<b>1463.84</b>	<b>1463.84</b>	<b>336.88</b>	<b>1101.57</b>

(₹ in lakh)

Asset-III						
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19	
A	Opening Equity	967.92	967.92	967.92	967.92	
B	Addition due to ACE	0.00	0.00	0.00	0.00	
C	Closing Equity (A+B)	967.92	967.92	967.92	967.92	
D	Average Equity (A+C)/2	967.92	967.92	967.92	967.92	
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	
F	MAT rate for the respective Financial year (in %)	20.961	21.342	21.342	21.342	
G	Rate of Return on Equity (Pre-tax) (in %)	19.610	19.705	19.705	19.705	
H	<b>Return on Equity (Pre-tax) (D*G)</b>	<b>189.81</b>	<b>190.73</b>	<b>190.73</b>	<b>190.73</b>	

47. The details of RoE allowed vide order dated 17.12.2015 in Petition No. 509/TT/2014 in respect of the transmission assets, claimed by Petitioner in the instant petition and trued-up RoE allowed in the instant order are as follows:

(₹ in lakh)						
Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-I	Allowed in order dated 17.12.2015 in Petition No. 509/TT/2014	1998.30	1998.30	1998.30	1998.30	1998.30
	Claimed by the Petitioner in the instant	1999.82	2009.00	2007.98	2007.98	2013.38



Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
	petition					
	Allowed after true-up in this order	1998.30	2007.98	2007.98	2007.98	2013.38
Asset-II	Allowed in order dated 17.12.2015 in Petition No. 509/TT/2014	1456.78	1456.78	1456.78	1456.78	1456.78
	Claimed by the Petitioner in the instant petition	1456.85	1463.91	1463.91	1447.43	1434.72
	Allowed after true-up in this order	1456.78	1463.84	1463.84	1438.46	1434.72
Asset-III	Allowed in order dated 17.12.2015 in Petition No. 509/TT/2014	189.81	189.81	189.81	189.81	189.81
	Claimed by the Petitioner in the instant petition	189.95	190.83	190.73	190.73	191.24
	Allowed after true-up in this order	189.81	190.73	190.73	190.73	191.24

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

48. O&M Expenses claimed by the Petitioner are within the norms specified under the 2014 Tariff Regulations. O&M Expenses approved in respect of the transmission assets for 2014-19 tariff period are as follows:

(₹ in lakh)

Asset-I					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Sub-station Bays (Numbers)</b>					
500 MW HVDC back to back Module at Gazuwaka	1	1	1	1	1
<b>Norm (₹ lakh/500MW)</b>					
HVDC back to back	578.00	627.00	679.00	736.00	797.00
<b>Total O&amp;M Expenses</b>	<b>578.00</b>	<b>627.00</b>	<b>679.00</b>	<b>736.00</b>	<b>797.00</b>

(₹ in lakh)

Asset-II					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Sub-station Bays (Numbers)</b>					
400 kV: Gajuwaka/ Vishakhapatnam: Vijaywada Bay -I & II	2	2	2	2	2
400 kV: Vijayawada: Gazuwaka - Bay - I & II	2	2	2	2	2
400 kV: Jeypore: 50% FSC Bays-I and II	2	2	2	2	2
<b>Norm (₹ lakh/bay)</b>					
400 kV Bay (AIS)	60.30	62.30	64.37	66.51	68.71
<b>Total Sub-station O&amp;M</b>	<b>361.80</b>	<b>373.80</b>	<b>386.22</b>	<b>399.06</b>	<b>412.26</b>



<b>Asset-II</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>Expenses (A)</b>					
<b>Transmission Lines (km)</b>					
400 kV D/C Vijayawada-Gazuwaka line	314.782	314.782	314.782	314.782	314.782
<b>Norm (₹ lakh/km)</b>					
D/C Twin/Triple Sub-conductor	0.707	0.731	0.755	0.780	0.806
<b>Total Transmission Line O&amp;M Expenses (B)</b>	<b>222.55</b>	<b>230.11</b>	<b>237.66</b>	<b>245.53</b>	<b>253.71</b>
<b>Total O&amp;M Expenses (C=A+B)</b>	<b>584.35</b>	<b>603.91</b>	<b>623.88</b>	<b>644.59</b>	<b>665.97</b>

(₹ in lakh)

<b>Asset-III</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 (Numbers)</b>					
400 kV: Rengali:40% FSC Bay	1	1	1	1	1
400 kV: Jeypore:40% FSC Bay	1	1	1	1	1
<b>Norm (₹ lakh/500 MW)</b>					
400 kV Bay (AIS)	60.30	62.30	64.37	66.51	68.71
<b>Total O&amp;M Expenses</b>	<b>120.60</b>	<b>124.60</b>	<b>128.74</b>	<b>133.02</b>	<b>137.42</b>

49. The details of O&M Expenses allowed vide order dated 17.12.2015 in Petition No. 509/TT/2014 in respect of the transmission assets, claimed by Petitioner in the instant petition and true-up O&M Expenses allowed in the instant order are as follows:

<b>(₹ in lakh)</b>						
<b>Asset</b>	<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Asset-I	Allowed in order dated 17.12.2015 in Petition No. 509/TT/2014	578.00	627.00	679.00	736.00	797.00
	Claimed by the Petitioner in the instant petition	578.00	627.00	679.00	736.00	797.00
	Allowed after true-up in this order	578.00	627.00	679.00	736.00	797.00
Asset-II	Allowed in order dated 17.12.2015 in Petition No. 509/TT/2014	584.35	603.91	623.88	644.59	665.97
	Claimed by the Petitioner in the instant petition	584.35	603.91	623.88	644.59	665.97
	Allowed after true-up in this order	584.35	603.91	623.88	644.59	665.97
Asset-III	Allowed in order dated 17.12.2015 in Petition No. 509/TT/2014	120.60	124.60	128.74	133.02	137.42
	Claimed by the Petitioner in the instant petition	120.60	124.60	128.74	133.02	137.42



Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
	Allowed after true-up in this order	120.60	124.60	128.74	133.02	137.42

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

50. The Petitioner has claimed IWC as per Regulation 28(1)(c) of the 2014 Tariff Regulations.

51. The trued-up IWC allowed in respect of the transmission assets for 2014-19 tariff period is as follows:

(₹ in lakh)

Asset-I						
Particulars		2014-15	2015-16	2016-17	2017-18	2018-19
A	Working Capital for O&M Expenses (O&M Expenses for one Month)	48.17	52.25	56.58	61.33	66.42
B	Working Capital for Maintenance Spares (15% of O&M)	86.70	94.05	101.85	110.40	119.55
C	Working Capital for Receivables (Equivalent to two months of annual transmission charges)	814.17	812.19	819.38	633.66	634.94
<b>D</b>	<b>Total Working Capital</b>	<b>949.03</b>	<b>958.49</b>	<b>977.82</b>	<b>805.39</b>	<b>820.91</b>
E	Rate of Interest on working capital (in %)	13.50	13.50	13.50	13.50	13.50
<b>F</b>	<b>Interest of working capital (D*E)</b>	<b>128.12</b>	<b>129.40</b>	<b>132.01</b>	<b>108.73</b>	<b>110.82</b>

(₹ in lakh)

Asset-II						
Particulars		2014-15	2015-16	2016-17	2017-18	2018-19
A	Working Capital for O&M Expenses (O&M Expenses for one Month)	48.70	50.33	51.99	53.72	55.50
B	Working Capital for Maintenance Spares (15% of O&M)	87.65	90.59	93.58	96.69	99.90
C	Working Capital for Receivables (Equivalent to two months of annual transmission charges)	708.98	693.09	676.13	653.06	632.09
<b>D</b>	<b>Total Working Capital</b>	<b>845.32</b>	<b>834.00</b>	<b>821.70</b>	<b>803.46</b>	<b>787.49</b>
E	Rate of Interest on working capital (in %)	13.50	13.50	13.50	13.50	13.50
<b>F</b>	<b>Interest of working capital (D*E)</b>	<b>114.12</b>	<b>112.59</b>	<b>110.93</b>	<b>108.47</b>	<b>106.31</b>

(₹ in lakh)



<b>Asset-III</b>						
<b>Particulars</b>		<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
A	Working Capital for O&M Expenses (O&M Expenses for one Month)	10.05	10.38	10.73	11.09	11.45
B	Working Capital for Maintenance Spares (15% of O&M)	18.09	18.69	19.31	19.95	20.61
C	Working Capital for Receivables (Equivalent to two months of annual transmission charges)	100.12	98.50	96.77	95.10	93.68
<b>D</b>	<b>Total Working Capital</b>	<b>128.26</b>	<b>127.58</b>	<b>126.81</b>	<b>126.13</b>	<b>125.75</b>
E	Rate of Interest on working capital (in %)	13.50	13.50	13.50	13.50	13.50
<b>F</b>	<b>Interest of working capital (D*E)</b>	<b>17.32</b>	<b>17.22</b>	<b>17.12</b>	<b>17.03</b>	<b>16.98</b>

52. The details of IWC allowed in respect of the transmission assets vide order dated 17.12.2015 in Petition No. 509/TT/2014, claimed by Petitioner in the instant petition and true-up IWC allowed in the instant order are as follows:

(₹ in lakh)						
<b>Asset</b>	<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Asset-I	Allowed in order dated 17.12.2015 in Petition No. 509/TT/2014	128.40	129.99	132.19	108.36	110.34
	Claimed by the Petitioner in the instant petition	128.16	129.42	132.01	108.73	110.82
	Allowed after true-up in this order	128.12	129.40	132.01	108.73	110.82
Asset-II	Allowed in order dated 17.12.2015 in Petition No. 509/TT/2014	113.32	111.64	109.98	108.37	106.90
	Claimed by the Petitioner in the instant petition	114.12	112.59	110.93	108.48	106.29
	Allowed after true-up in this order	114.12	112.59	110.93	108.47	106.31
Asset-III	Allowed in order dated 17.12.2015 in Petition No. 509/TT/2014	17.23	17.12	17.01	16.92	16.86
	Claimed by the Petitioner in the instant petition	17.32	17.22	17.12	17.03	16.97
	Allowed after true-up in this order	17.32	17.22	17.12	17.03	16.98



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

53. Accordingly, annual transmission charges approved in respect of the transmission assets after truing up for 2014-19 tariff period are as follows:

(₹ in lakh)

Asset-I					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	1930.04	1930.04	1930.04	746.40	746.40
Interest on Loan	250.54	178.74	167.28	202.84	142.03
Return on Equity	1998.30	2007.98	2007.98	2007.98	2013.38
O&M Expenses	578.00	627.00	679.00	736.00	797.00
Interest on Working Capital	128.12	129.40	132.01	108.73	110.82
<b>Total</b>	<b>4885.00</b>	<b>4873.15</b>	<b>4916.30</b>	<b>3801.95</b>	<b>3809.63</b>

(₹ in lakh)

Asset-II					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	1452.20	1452.20	1452.20	1426.12	1419.48
Interest on Loan	646.41	526.01	405.95	300.70	166.08
Return on Equity	1456.78	1463.84	1463.84	1438.46	1434.72
O&M Expenses	584.35	603.91	623.88	644.59	665.97
Interest on Working Capital	114.12	112.59	110.93	108.47	106.31
<b>Total</b>	<b>4253.85</b>	<b>4158.54</b>	<b>4056.79</b>	<b>3918.33</b>	<b>3792.56</b>

(₹ in lakh)

Asset-III					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	180.34	180.34	180.34	180.34	180.34
Interest on Loan	92.66	78.12	63.68	49.46	36.11
Return on Equity	189.81	190.73	190.73	190.73	191.24
O&M Expenses	120.60	124.60	128.74	133.02	137.42
Interest on Working Capital	17.32	17.22	17.12	17.03	16.98
<b>Total</b>	<b>600.72</b>	<b>591.01</b>	<b>580.61</b>	<b>570.58</b>	<b>562.09</b>

54. The details of annual transmission charges allowed in respect of the transmission charges *vide* order dated 17.12.2015 in Petition No. 509/TT/2014, claimed by Petitioner in the instant petition and approved after truing-up in the instant order are as follows:

(₹ in lakh)

Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-I	Allowed in order dated 17.12.2015 in Petition No. 509/TT/2014	4897.42	4899.59	4924.56	3785.53	3788.02
	Claimed by the	4886.57	4874.20	4916.32	3801.95	3809.62





Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
	Petitioner in the instant petition					
	Allowed after true-up in this order	4885.00	4873.15	4916.30	3801.95	3809.63
Asset-II	Allowed in order dated 17.12.2015 in Petition No. 509/TT/2014	4218.39	4116.11	4014.72	3914.04	3818.94
	Claimed by the Petitioner in the instant petition	4253.92	4158.61	4056.86	3918.90	3791.80
	Allowed after true-up in this order	4253.85	4158.54	4056.79	3918.33	3792.56
Asset-III	Allowed in order dated 17.12.2015 in Petition No. 509/TT/2014	596.95	586.33	575.94	565.93	556.85
	Claimed by the Petitioner in the instant petition	600.87	591.11	580.61	570.58	562.09
	Allowed after true-up in this order	600.72	591.01	580.61	570.58	562.09

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

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

(₹ in lakh)

Asset-I					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	746.40	746.40	746.40	746.41	746.40
Interest on Loan	126.16	55.47	10.06	0.00	0.00
Return on Equity	1913.92	1913.92	1913.92	1913.92	1913.92
Interest on Working Capital	114.53	116.22	118.16	120.75	123.39
O&M Expenses	1666.50	1725.50	1785.50	1848.50	1913.50
<b>Total</b>	<b>4567.51</b>	<b>4557.51</b>	<b>4574.04</b>	<b>4629.58</b>	<b>4697.21</b>

(₹ in lakh)

Asset-II					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	292.61	294.96	320.01	363.42	366.46
Interest on Loan	120.30	99.95	109.84	127.78	108.74
Return on Equity	1366.56	1369.50	1399.30	1433.18	1437.49
Interest on Working Capital	47.25	47.84	49.56	51.77	52.28



O&M Expenses	470.22	486.76	503.85	521.50	539.70
<b>Total</b>	<b>2296.94</b>	<b>2299.01</b>	<b>2382.56</b>	<b>2497.65</b>	<b>2504.67</b>

(₹ in lakh)

Asset-III					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	77.22	111.85	142.70	146.95	146.94
Interest on Loan	27.56	44.95	67.83	57.22	43.31
Return on Equity	181.79	200.74	222.34	224.99	224.99
Interest on Working Capital	7.11	8.30	9.53	9.58	9.46
O&M Expenses	64.30	66.56	68.90	71.32	73.82
<b>Total</b>	<b>357.98</b>	<b>432.40</b>	<b>511.30</b>	<b>510.06</b>	<b>498.52</b>

56. The details of IWC claimed by the Petitioner in respect of the transmission assets are as follows:

(₹ in lakh)

Asset-I					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	138.88	143.79	148.79	154.04	159.46
Maintenance Spares	249.98	258.83	267.83	277.28	287.03
Receivables	561.58	561.89	563.92	570.77	577.53
<b>Total</b>	<b>950.44</b>	<b>964.51</b>	<b>980.54</b>	<b>1,002.09</b>	<b>1,024.02</b>
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
<b>Interest on Working Capital</b>	<b>114.53</b>	<b>116.22</b>	<b>118.16</b>	<b>120.75</b>	<b>123.39</b>

(₹ in lakh)

Asset-II					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	39.19	40.56	41.99	43.46	44.98
Maintenance Spares	70.53	73.01	75.58	78.23	80.96
Receivables	282.41	283.44	293.74	307.93	307.95
<b>Total</b>	<b>392.13</b>	<b>397.01</b>	<b>411.31</b>	<b>429.62</b>	<b>433.89</b>
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
<b>Interest on Working Capital</b>	<b>47.25</b>	<b>47.84</b>	<b>49.56</b>	<b>51.77</b>	<b>52.28</b>

(₹ in lakh)

Asset-III					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	5.36	5.55	5.74	5.94	6.15
Maintenance Spares	9.65	9.98	10.34	10.70	11.07
Receivables	44.01	53.31	63.04	62.89	61.29
<b>Total</b>	<b>59.02</b>	<b>68.84</b>	<b>79.12</b>	<b>79.53</b>	<b>78.51</b>
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
<b>Interest on Working Capital</b>	<b>7.11</b>	<b>8.30</b>	<b>9.53</b>	<b>9.58</b>	<b>9.46</b>

57. The Petitioner has not combined the transmission assets in the 2019-24 period as required under Regulation 8(1)(i) of the 2019 Tariff Regulations. The



Petitioner is directed to combine the transmission assets and to submit the combined tariff forms at the time of truing up of 2019-24 period.

### **Capital Cost**

58. Regulations 19 of the 2019 Tariff Regulations provide as follows:

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

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

- (a) *The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;*
- (b) *Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;*
- (c) *Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period;*
- (d) *Interest during construction and incidental expenditure during construction as computed in accordance with these regulations;*
- (e) *Capitalised initial spares subject to the ceiling rates in accordance with these regulations;*
- (f) *Expenditure on account of additional capitalization and de-capitalisation determined in accordance with these regulations;*
- (g) *Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 7 of these regulations;*
- (h) *Adjustment of revenue earned by the transmission licensee by using the assets before the date of commercial operation;*
- (i) *Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*
- (j) *Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;*
- (k) *Capital expenditure on account of biomass handling equipment and facilities, for co-firing;*
- (l) *Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;*
- (m) *Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project;*
- (n) *Expenditure on account of change in law and force majeure events; and*
- (o) *Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.*



- (3) *The Capital cost of an existing project shall include the following:*
- (a) *Capital cost admitted by the Commission prior to 1.4.2019 duly 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 renovation and modernisation as admitted by this Commission in accordance with these regulations;*
  - (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 upto the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and*
  - (f) *Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.*
- (4) *The capital cost in case of existing or new hydro generating station shall also include:*
- (a) *cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and*
  - (b) *cost of the developer's 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area.*
- (5) *The following shall be excluded from the capital cost of the existing and new projects:*
- (a) *The assets forming part of the project, but not in use, as declared in the tariff petition;*
  - (b) *De-capitalised Assets after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:*

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

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

- (c) *In case of hydro generating stations, any expenditure incurred or committed to be incurred by a project developer for getting the project site allotted by the State Government by following a transparent process;*
- (d) *Proportionate cost of land of the existing project which is being used for generating power from generating station based on renewable energy; and*
- (e) *Any grant received from the Central or State Government or any statutory body or authority for the execution of the project which does not carry any liability of repayment."*



59. The admitted capital cost of ₹36851.61 lakh for Asset-I, ₹26867.30 lakh for Asset-II and ₹3456.34 lakh for Asset-III as on 31.3.2019 has been considered as opening capital cost as on 1.4.2019 for determination of tariff in accordance with Regulation 19 of the 2019 Tariff Regulations.

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

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

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

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

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

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

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

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

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

- (a) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority, or order or decree of any court of law;*
- (b) Change in law or compliance of any existing law;*



- (c) Deferred works relating to ash pond or ash handling system in the original scope of work;*
- (d) Liability for works executed prior to the cut-off date;*
- (e) Force Majeure events;*
- (f) Liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments; and*
- (g) Raising of ash dyke as a part of ash disposal system.*

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

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

61. The Petitioner has submitted that the ACE proposed in the instant transmission assets is on account of upgradation of FSCs in view of obsolescence of old technology used in these FSCs. Due to lack of spare part, FSCs installed at Jeypore and Rengali were not performing satisfactorily and the OEM has suggested for replacement of old control and protection system at Jeypore and Rengali Sub-stations with latest technology. Accordingly, for reliability and availability of FSC systems connected with the subject lines, the Control and Protection are required to be replaced with the state of the art new Control and Protection System. Accordingly, such replacement has become necessary on account of obsolescence of technology and for efficient and secure operation of the transmission system. The ACE has been claimed under Regulation 25(2)(c) of the 2019 Tariff Regulations. The ACE claimed by the Petitioner is as follows:



Asset	ACE 2019-24 period		De-cap	Net ACE
	2020-21	2021-22	2020-21	
Asset-II	1483.79	164.87	-379.76	1268.90
Asset-III	847.83	94.20	-187.92	754.11

62. TANGEDCO has submitted that the Petitioner has claimed ACE of ₹2331.62 lakh for 2019-24 period and has stated that due to lack of spare parts, FSCs were not performing satisfactorily and OEM has suggested for replacement of old control and protection system at Jeypore and Rengali Sub-stations with latest technology. In support of its claim, the Petitioner has furnished the tripping details of the FSCs. However, the Petitioner has not submitted the details of discussions held during the operation coordination committee meetings and minutes of meeting and reports of OEM with regard to non-availability of spares. TANGEDCO has further submitted that replacement of equipment before expiry of their useful life will be huge burden on beneficiaries. The Petitioner should bring on record the benefits derived from the transmission assets from COD to till date and cost benefit analysis for upgradation of the FSCs. TANGEDCO has requested for discussion on upgradation proposal with the LTTCs.

63. In response, the Petitioner has submitted that details of ACE during 2019-24 tariff period has been furnished vide affidavit dated 10.12.2020. The Petitioner has further submitted that ACE is claimed under Regulation 25(2) of the 2019 Tariff Regulations. The Petitioner has submitted that ACE has been proposed on account of replacement of old and obsolete equipment and any expenditure on account of this shall be made only after approved of the Commission in the instant petition and the same shall be claimed only after actual expenditure incurred. RPC Approval/ beneficiaries approval for such expenses is, therefore, not relevant under Regulation 25(2) of the 2019 Tariff Regulations.



64. The Petitioner vide Auditor's Certificates dated 19.9.2019 has projected net ACE of ₹1268.90 lakh for Asset-II and ₹754.11 lakh for Asset-III after adjustment of de-capitalisation during 2019-24 tariff period. Further, the Petitioner has submitted revised Auditor's Certificate dated 15.11.2021 for Asset-II and claimed net ACE of ₹1268.90 lakh. The details of ACE are as follows:

<b>Particulars</b>	<b>(₹ in lakh)</b>	
	<b>Asset-II</b>	<b>Asset-III</b>
Proposed ACE in 2019-20	96.32	0.00
Proposed ACE in 2020-21	8.02	847.83
Proposed ACE in 2021-22	1049.72	94.20
Proposed ACE in 2022-23	494.60	0.00
Proposed De-Capitalization in 2020-21	0.00	187.92
Proposed De-Capitalization in 2022-23	379.76	0.00

65. The Petitioner has submitted that projected ACE during 2019-24 is on account of upgradation of FSCs in view of obsolescence of old technology used in these FSCs. The Petitioner has further submitted that due to lack of spare parts, FSCs installed at such locations were not performing satisfactorily and OEM has suggested for replacement of old control and protection system at Jeypore and Rengali Sub-stations with latest technology. Accordingly, for reliability and availability of FSC systems connected with the subject lines, the Control and Protection are required to be replaced with the new Control and Protection System. Accordingly, such replacement has become necessary on account of obsolescence of technology and for efficient and secure operation of the transmission system and is covered under Regulation 25(2) of the 2019 Tariff regulations. Further, the Petitioner has submitted that the proposed ACE is for replacement of existing equipment which are part of original scope of the work. The Petitioner vide Auditor's Certificates dated 19.9.2019 and 15.11.2021 has submitted the cost details of ACE/ de-capitalization proposed during 2019-24 and the same are as follows:





(₹ in lakh)

Particulars	Asset-II	Asset-III
	Sub-station	Sub-station
Proposed ACE in 2019-20	96.32	0.00
Proposed ACE in 2020-21	8.02	847.83
Proposed De-capitalisation in 2020-21	0.00	187.92
Proposed ACE in 2021-22	1049.72	94.20
Proposed ACE in 2022-23	494.60	0.00
Proposed De-capitalisation in 2022-23	379.76	0.00
<b>Net ACE</b>	<b>1268.90</b>	<b>754.11</b>

66. The Commission directed the Petitioner to place on record Internal Committee Report based on which decision to replace FSCs was taken. In response, the Petitioner has submitted the Internal Committee Report whose recommendations are as follows:

- a) Old control and protection system may be replaced with latest Control and Protection System
- b) To replace RSI make CLDE resistor.

67. We have considered the submissions of the Petitioner and TANGEDCO. The petitioner has submitted that some equipment/ components of FSCs are being replaced due to non-availability of spares. OEM has suggested for R&M of the FSCs system installed at Jeypore Sub-station on account of non-availability of electronic components, control and protection panel as the said system was installed way back in 2005. We are of the view that replacement of electronic components, control and protection panel of FSCs is required for smooth operation and maintenance of the of FSC installed in Rengali-Indravati and Jeypore-Bolangir 400 kV S/C line. The FSC installed in Rengali-Indravati and Jeypore-Blangir 400 kV S/C line will facilitate transfer of 1000 MW power through HVDC back-to-back station at Gazuwaka. The Petitioner has proposed to replace some parts of the FSCs due to obsolescence of technology and non-availability of spare parts. We are of the view that maintaining the FSCs in healthy condition



is critical and important for the reliability of the transmission system. Accordingly, we approve the proposed ACE towards up-gradation of FSCs under Regulation 25(2)(c) of the 2019 Tariff Regulations. However, the Petitioner is directed to carry out a detailed study for effective utilisation of FSCs and get it duly vetted from CTU.

68. The details of ACE and de-capitalisation allowed in 2019-24 tariff period are as follows:

(₹ in lakh)						
Asset	Sl. No.	Particulars	2019-20	2020-21	2021-22	2022-23
Asset-II	(1)	ACE	96.32	8.02	1049.72	494.60
	(2)	De-capitalization	0.00	0.00	0.00	379.76
	(3)	<b>Net ACE (1)-(2)</b>	<b>96.32</b>	<b>8.02</b>	<b>1049.72</b>	<b>114.84</b>
Asset-III	(1)	ACE	0.00	847.83	94.20	0.00
	(2)	De-capitalization	0.00	187.92	<b>0.00</b>	0.00
	(3)	<b>Net ACE (1)-(2)</b>	<b>0.00</b>	<b>659.91</b>	<b>94.20</b>	<b>0.00</b>

69. Accordingly, capital cost approved for the transmission assets as on 31.3.2024 is as follows:

(₹ in lakh)						
Asset	Capital cost allowed as on 1.4.2019	Net ACE				Capital cost as on 31.3.2024
		2019-20	2020-21	2021-22	2022-23	
Asset-I	36851.61	0.00	0.00	0.00	0.00	36851.61
Asset-II	26867.30	96.32	8.02	1049.72	114.84	28136.20
Asset-III	3456.34	0.00	659.91	94.20	0.00	4210.45

### **Debt-Equity Ratio**

70. 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 project including communication, project 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 project including communication project 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 project including communication project 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.”

71. Debt-equity ratio for 2019-24 period is allowed as per Regulation 18(3) of the 2019 Tariff Regulations. The details of debt-equity ratio considered for the



purpose of tariff in respect of the transmission assets for 2019-24 tariff period are as follows:

Asset	Particulars	As on 1.4.2019		As on 31.3.2024	
		Capital cost (₹ in lakh)	(in %)	Capital cost (₹ in lakh)	(in %)
Asset-I	Debt	26661.42	72.35	26661.42	72.35
	Equity	10190.19	27.65	10190.19	27.65
	<b>Total</b>	<b>36851.61</b>	<b>100.00</b>	<b>36851.61</b>	<b>100.00</b>
Asset-II	Debt	19605.84	72.97	20482.67	72.80
	Equity	7261.46	27.03	7653.53	27.20
	<b>Total</b>	<b>26867.30</b>	<b>100.00</b>	<b>28136.20</b>	<b>100.00</b>
Asset-III	Debt	2488.42	72.00	3012.55	71.55
	Equity	967.92	28.00	1197.90	28.45
	<b>Total</b>	<b>3456.34</b>	<b>100.00</b>	<b>4210.45</b>	<b>100.00</b>

### Depreciation

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

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

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

(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 assets shall be considered depreciable;*

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



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

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

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

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

*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 upto 31.3.2019 from the gross depreciable value of the assets.*

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

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

*(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.”

73. We have considered the submissions of the Petitioner. Asset-I has already completed 12 years of life as on 31.3.2017. The remaining depreciable value has been spread across the remaining useful life of the asset. Asset-II and Asset-III have completed 12 years of life as on 31.3.2019. The remaining depreciable value of ₹6154.46 lakh has been spread across the balance useful life of 21 years in case of Asset-II and remaining depreciable value of ₹1003.86 lakh has been spread across the balance useful life of 13 years in case of Asset-III in accordance with Regulation 33(5) of the 2019 Tariff Regulations. Depreciation allowed during 2019-24 period in respect of the transmission assets are as follows:

(₹ in lakh)

		<b>Asset-I</b>				
<b>Particulars</b>		<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
A	Opening Gross Block	36851.61	36851.61	36851.61	36851.61	36851.61
B	Addition during 2019-24 due to ACE	0.00	0.00	0.00	0.00	0.00
C	Closing Gross Block (A+B)	36851.61	36851.61	36851.61	36851.61	36851.61
D	Average Gross Block (A+C)/2	36851.61	36851.61	36851.61	36851.61	36851.61
E	Weighted Average Rate of Depreciation (in %)	2.025	2.025	2.025	2.025	2.025
F	Balance useful life of the asset at the beginning of the year (Year)	11.00	10.00	9.00	8.00	7.00
G	Lapsed life at the beginning of the year (Year)	14.00	15.00	16.00	17.00	18.00
H	Aggregated Depreciable Value (D*90%)	33166.45	33166.45	33166.45	33166.45	33166.45
I	<b>Depreciation during the year</b>	746.40	746.40	746.40	746.40	746.40
J	Cumulative Depreciation at the end of the year	25702.40	26448.81	27195.21	27941.62	28688.02
K	Remaining Aggregate	7464.04	6717.64	5971.24	5224.83	4478.43



Asset-I					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciable Value at the end of the year					

(₹ in lakh)

Asset-II						
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24	
A	Opening Gross Block	26867.30	26963.62	26971.64	28021.36	28136.20
B	Addition during 2019-24 due to ACE	96.32	8.02	1049.72	114.84	0.00
C	Closing Gross Block (A+B)	26963.62	26971.64	28021.36	28136.20	28136.20
D	Average Gross Block (A+C)/2	26915.46	26967.63	27496.50	28078.78	28136.20
E	Weighted Average Rate of Depreciation (in %)	1.089	1.095	1.165	1.245	1.307
F	Balance useful life of the asset at the beginning of the year (Year)	21.00	20.00	19.00	18.00	17.00
G	Lapsed life at the beginning of the year (Year)	12.00	13.00	14.00	15.00	16.00
H	Aggregated Depreciable Value (D*90%)	24223.91	24270.87	24746.85	25270.90	25322.58
I	<b>Depreciation during the year</b>	<b>293.07</b>	<b>295.42</b>	<b>320.47</b>	<b>349.58</b>	<b>367.76</b>
J	Cumulative Depreciation at the end of the year	18362.53	18657.94	18978.41	19070.68	19438.43
K	Remaining Aggregate Depreciable Value at the end of the year	5861.39	5612.92	5768.44	5942.91	5884.15

(₹ in lakh)

Asset-III						
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24	
A	Opening Gross Block	3456.34	3456.34	4116.25	4210.45	4210.45
B	Addition during 2019-24 due to ACE	0.00	659.91	94.20	0.00	0.00
C	Closing Gross Block (A+B)	3456.34	4116.25	4210.45	4210.45	4210.45
D	Average Gross Block (A+C)/2	3456.34	3786.30	4163.35	4210.45	4210.45
E	Weighted Average Rate of Depreciation (in %)	2.234	2.693	3.449	3.511	3.511
F	Balance useful life of the asset at the beginning of the year (Year)	13.00	12.00	11.00	10.00	9.00
G	Lapsed life at the beginning of the year (Year)	12.00	13.00	14.00	15.00	16.00
H	Aggregated Depreciable Value (D*90%)	3108.37	3405.33	3744.68	3787.07	3787.07
I	<b>Depreciation during the year</b>	<b>77.22</b>	<b>101.97</b>	<b>143.60</b>	<b>147.84</b>	<b>147.84</b>
J	Cumulative Depreciation at the end of the year	2181.73	2165.08	2308.68	2456.52	2604.35
K	Remaining Aggregate Depreciable Value at the end of	926.64	1121.63	1436.00	1330.55	1182.71



Asset-III					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
the year					

### **Interest on Loan (“IoL”)**

74. 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 project, 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.”*





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

(₹ in lakh)

Asset-I						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Gross Normative Loan	26661.42	26661.42	26661.42	26661.42	26661.42
B	Cumulative Repayments upto Previous Year	24956.00	25702.40	26448.81	26661.42	26661.42
C	Net Loan-Opening (A-B)	1705.42	959.02	212.61	0.00	0.00
D	Addition due to ACE	0.00	0.00	0.00	0.00	0.00
E	Repayment during the year	746.40	746.40	212.61	0.00	0.00
F	Net Loan-Closing (C+D-E)	959.02	212.61	0.00	0.00	0.00
G	Average Loan (C+F)/2	1332.22	585.81	106.31	0.00	0.00
H	Weighted Average Rate of Interest on Loan (in %)	9.470	9.470	9.470	9.470	9.474
I	<b>Interest on Loan (G*H)</b>	<b>126.16</b>	<b>55.48</b>	<b>10.07</b>	<b>0.00</b>	<b>0.00</b>

(₹ in lakh)

Asset-II						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Gross Normative Loan	19605.84	19673.26	19678.87	20413.67	20482.67
B	Cumulative Repayments upto Previous Year	18129.10	18422.17	18717.58	19038.05	19128.98
C	Net Loan-Opening (A-B)	1476.74	1251.10	961.29	1375.62	1353.70
D	Addition due to ACE	67.42	5.61	734.80	69.00	0.00
E	Repayment during the year	293.07	295.42	320.47	349.58	367.76
F	Net Loan-Closing (C+D-E)	1251.10	961.29	1375.62	1353.70	985.94
G	Average Loan (C+F)/2	1363.92	1106.19	1168.46	1364.66	1169.82
H	Weighted Average Rate of Interest on Loan (in %)	8.882	9.110	9.470	9.470	9.470
I	<b>Interest on Loan (G*H)</b>	<b>121.14</b>	<b>100.77</b>	<b>110.65</b>	<b>129.23</b>	<b>110.78</b>

(₹ in lakh)

Asset-III						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Gross Normative Loan	2488.42	2488.42	2946.61	3012.55	3012.55
B	Cumulative Repayments upto Previous Year	2122.44	2199.66	2182.04	2325.64	2473.48
C	Net Loan-Opening (A-B)	365.98	288.76	764.57	686.91	539.07
D	Addition due to ACE	0.00	458.19	65.94	0.00	0.00
E	Repayment during the year	77.22	101.97	143.60	147.84	147.84



F	Net Loan-Closing (C+D-E)	288.76	644.98	686.91	539.07	391.24
G	Average Loan (C+F)/2	327.37	466.87	725.74	612.99	465.16
H	Weighted Average Rate of Interest on Loan (in %)	8.418	8.616	9.470	9.470	9.466
I	<b>Interest on Loan (G*H)</b>	<b>27.56</b>	<b>40.22</b>	<b>68.73</b>	<b>58.05</b>	<b>44.03</b>

### **Return on Equity (“RoE”)**

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

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

(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating station, transmission project including communication project 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 project 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 project up to load dispatch centre or protection project 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 rate shall be considered on the basis of actual tax paid in respect of the financial year in line with the provisions of the relevant Finance Acts by the concerned generating company or the transmission licensee, as the case may be. The actual tax paid on income from other businesses including deferred tax liability (i.e. income from business other than business of generation or transmission, as the case may be) shall be excluded for the calculation of effective tax rate.*

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

*Rate of pre-tax return on equity = Base rate / (1-t)*

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

*(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. MAT rate applicable during 2019-20 has been considered for the purpose of RoE which shall be trued up with actual tax rate in accordance with Regulation 31(3) of the 2019 Tariff Regulations. RoE allowed in respect of the transmission assets under Regulation 30 of the 2019 Tariff Regulations is as follows:



(₹ in lakh)

Asset-I						
Particulars		2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Equity	10190.19	10190.19	10190.19	10190.19	10190.19
B	Addition due to ACE	0.00	0.00	0.00	0.00	0.00
C	Closing Equity (A+B)	10190.19	10190.19	10190.19	10190.19	10190.19
D	Average Equity (A+D)/2	10190.19	10190.19	10190.19	10190.19	10190.19
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	MAT rate for the respective Financial year (in %)	17.472	17.472	17.472	17.472	17.472
G	Rate of Return on Equity (Pre-tax) (in %)	18.782	18.782	18.782	18.782	18.782
H	<b>Return on Equity (Pre-tax) (D*G)</b>	<b>1913.92</b>	<b>1913.92</b>	<b>1913.92</b>	<b>1913.92</b>	<b>1913.92</b>

(₹ in lakh)

Asset-II						
Particulars		2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Equity	7261.46	7290.36	7292.77	7607.69	7653.53
B	Addition due to ACE	28.90	2.41	314.92	45.84	0.00
C	Closing Equity (A+B)	7290.36	7292.77	7607.69	7653.53	7653.53
D	Average Equity (A+D)/2	7275.91	7291.56	7450.23	7630.61	7653.53
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	MAT rate for the respective Financial year (in %)	17.472	17.472	17.472	17.472	17.472
G	Rate of Return on Equity (Pre-tax) (in %)	18.782	18.782	18.782	18.782	18.782
H	<b>Return on Equity (Pre-tax) (D*G)</b>	<b>1366.56</b>	<b>1369.50</b>	<b>1399.30</b>	<b>1433.18</b>	<b>1437.49</b>

(₹ in lakh)

Asset-III						
Particulars		2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Equity	967.92	967.92	1169.64	1197.90	1197.90
B	Addition due to ACE	0.00	201.72	28.26	0.00	0.00
C	Closing Equity (A+B)	967.92	1169.64	1197.90	1197.90	1197.90
D	Average Equity (A+D)/2	967.92	1068.78	1183.77	1197.90	1197.90
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	MAT rate for the respective Financial year (in %)	17.472	17.472	17.472	17.472	17.472
G	Rate of Return on Equity (Pre-tax) (in %)	18.782	18.782	18.782	18.782	18.782
H	<b>Return on Equity (Pre-tax) (D*G)</b>	<b>181.79</b>	<b>200.74</b>	<b>222.34</b>	<b>224.99</b>	<b>224.99</b>

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



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

“35. ....

**(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 (Rs 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 (Rs 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 (Rs 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	834	864	894	925	958



<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
<i>Gazuwaka BTB)</i>					
<i>Gazuwaka HVDC Back-to-Back station (Rs. Lakh per 500 MW)</i>	1,666	1,725	1,785	1,848	1,913
<i>500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)</i>	2,252	2,331	2,413	2,498	2,586
<i>±500 kV Talcher-Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)</i>	2,468	2,555	2,645	2,738	2,834
<i>±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)</i>	1,696	1,756	1,817	1,881	1,947
<i>±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)</i>	2,563	2,653	2,746	2,842	2,942

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

*Provided further that:*

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

*(b) The total allowable operation and maintenance expenses for the transmission system shall be calculated by multiplying the number of sub-*



station bays, transformer capacity of the transformer (in MVA) and km of line length with the applicable norms for the operation and maintenance expenses per bay, per MVA and per km respectively.

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

Provided that the transmission licensee shall submit the assessment of the security requirement and estimated security expenses, the details of year-wise actual capital spares consumed at the time of truing up with appropriate justification.

**“35(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 O&M Expenses claimed by the Petitioner and allowed in respect of the elements of transmission assets are as follows:

(₹ in lakh)

Asset-I					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Sub-station Bays (Number)</b>					
500 MW HVDC back to back at Gazuwaka	1	1	1	1	1
<b>Norm (₹ lakh/500 MW)</b>					
HVDC back to back	1666.00	1725.00	1785.00	1848.00	1913.00
<b>Total O&amp;M Expenses</b>	1666.00	1725.00	1785.00	1848.00	1913.00

(₹ in lakh)

Asset-II					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Sub-station Bays (Numbers)</b>					
400 kV: Gajuwaka/Vishakhapatnam:Vijaywada Bay -I & II	2	2	2	2	2
400 kV: Vijayawada:Gazuwaka - Bay - I & II	2	2	2	2	2
400 kV: Jeypore:50% FSC Bays-I and II	2	2	2	2	2
<b>Norm (₹ lakh/bay)</b>					
400 kV Bay (AIS)	32.15	33.28	34.45	35.66	36.91
<b>Total Sub-station O&amp;M Expenses (A)</b>	192.90	199.68	206.70	213.96	221.46
<b>Transmission Lines (km)</b>					
400 kV D/C Vijaywada Gazuwaka	314.782	314.782	314.782	314.782	314.782
<b>Norm (₹ lakh/km)</b>					
D/C Twin/Triple Sub-conductor	0.881	0.912	0.944	0.977	1.011



Asset-II					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Total Transmission Line O&amp;M Expenses (B)</b>	277.32	287.08	297.15	307.54	318.24
<b>Total O&amp;M Expenses (C=A+B)</b>	<b>470.22</b>	<b>486.76</b>	<b>503.85</b>	<b>521.50</b>	<b>539.70</b>

(₹ in lakh)

Asset-III					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Sub-station Bays (Number )</b>					
400 kV: Rengali:40% FSC Bay	1	1	1	1	1
400 kV: Jeypore:40% FSC Bay	1	1	1	1	1
<b>Norm (₹ lakh/500 MW)</b>					
400 kV Bay (AIS)	32.15	33.28	34.45	35.66	36.91
<b>Total O&amp;M Expenses</b>	<b>64.30</b>	<b>66.56</b>	<b>68.90</b>	<b>71.32</b>	<b>73.82</b>

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

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

**“34. Interest on Working Capital:** (1) *The working capital shall cover:*

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

*(i) Receivables equivalent to 45 days of annual fixed cost;*

*(ii) Maintenance spares @ 15% of operation and maintenance expenses including security expenses; and*

*(iii) Operation and maintenance expenses, including security expenses for one month.*

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

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

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

**“3. Definition** - *In these regulations, unless the context otherwise requires: -*





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

81. The Petitioner has submitted that it has computed IWC for 2019-24 period considering SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of IWC as 12.05%. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The rate of IWC considered is 12.05% (SBI 1year 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 allowed thereon in respect of the transmission assets are as follows:

(₹ in lakh)

		<b>Asset-I</b>				
<b>Particulars</b>		<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
A	Working Capital for O&M Expenses (O&M Expenses for one Month)	138.83	143.75	148.75	154.00	159.42
B	Working Capital for Maintenance Spares (15% of O&M)	249.90	258.75	267.75	277.20	286.95
C	Working Capital for Receivables (Equivalent to 45 days of annual transmission charges)	561.52	560.86	561.96	568.77	575.49
<b>D</b>	<b>Total Working Capital (A+B+C)</b>	<b>950.25</b>	<b>963.36</b>	<b>978.46</b>	<b>999.97</b>	<b>1021.85</b>
E	Rate of Interest on working capital (in %)	12.05	11.25	10.50	10.50	10.50
<b>F</b>	<b>Interest of working capital (D*E)</b>	<b>114.50</b>	<b>108.38</b>	<b>102.74</b>	<b>105.00</b>	<b>107.29</b>

(₹ in lakh)

		<b>Asset-II</b>				
<b>Particulars</b>		<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
A	Working Capital for O&M Expenses (O&M Expenses for one Month)	39.19	40.56	41.99	43.46	44.98
B	Working Capital for Maintenance	70.53	73.01	75.58	78.23	80.96



Asset-II						
Particulars		2019-20	2020-21	2021-22	2022-23	2023-24
	Spares (15% of O&M)					
C	Working Capital for Receivables (Equivalent to 45 days of annual transmission charges)	282.57	283.20	293.10	305.55	307.53
<b>D</b>	<b>Total Working Capital (A+B+C)</b>	<b>392.29</b>	<b>396.78</b>	<b>410.67</b>	<b>427.23</b>	<b>433.46</b>
E	Rate of Interest on working capital (in %)	12.05	11.25	10.50	10.50	10.50
<b>F</b>	<b>Interest of working capital (D*E)</b>	<b>47.27</b>	<b>44.64</b>	<b>43.12</b>	<b>44.86</b>	<b>45.51</b>

(₹ in lakh)

Asset-III						
Particulars		2019-20	2020-21	2021-22	2022-23	2023-24
A	Working Capital for O&M Expenses (O&M Expenses for one Month)	5.36	5.55	5.74	5.94	6.15
B	Working Capital for Maintenance Spares (15% of O&M)	9.65	9.98	10.34	10.70	11.07
C	Working Capital for Receivables (Equivalent to 45 days of annual transmission charges)	44.01	51.41	63.11	62.95	61.34
<b>D</b>	<b>Total Working Capital (A+B+C)</b>	<b>59.02</b>	<b>66.94</b>	<b>79.18</b>	<b>79.59</b>	<b>78.57</b>
E	Rate of Interest on working capital (in %)	12.05	11.25	10.50	10.50	10.50
<b>F</b>	<b>Interest of working capital (D*E)</b>	<b>7.11</b>	<b>7.53</b>	<b>8.31</b>	<b>8.36</b>	<b>8.25</b>

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

82. The Annual Fixed Charges allowed in respect of the transmission assets for 2019-24 tariff period are as follows:

(₹ in lakh)

Asset-I					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	746.40	746.40	746.40	746.40	746.40
Interest on Loan	126.16	55.48	10.07	0.00	0.00
Return on Equity	1913.92	1913.92	1913.92	1913.92	1913.92
O&M Expenses	1666.00	1725.00	1785.00	1848.00	1913.00
Interest on Working Capital	114.50	108.38	102.74	105.00	107.29
<b>Total</b>	<b>4566.99</b>	<b>4549.18</b>	<b>4558.13</b>	<b>4613.32</b>	<b>4680.62</b>

(₹ in lakh)

Asset-II					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	293.07	295.42	320.47	349.58	367.76
Interest on Loan	121.14	100.77	110.65	129.23	110.78
Return on Equity	1366.56	1369.50	1399.30	1433.18	1437.49



<b>Asset-II</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	470.22	486.76	503.85	521.50	539.70
Interest on Working Capital	47.27	44.64	43.12	44.86	45.51
<b>Total</b>	<b>2298.26</b>	<b>2297.09</b>	<b>2377.40</b>	<b>2478.36</b>	<b>2501.24</b>

(₹ in lakh)

<b>Asset-III</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	77.22	101.97	143.60	147.84	147.84
Interest on Loan	27.56	40.22	68.73	58.05	44.03
Return on Equity	181.79	200.74	222.34	224.99	224.99
O&M Expenses	64.30	66.56	68.90	71.32	73.82
Interest on Working Capital	7.11	7.53	8.31	8.36	8.25
<b>Total</b>	<b>357.98</b>	<b>417.02</b>	<b>511.88</b>	<b>510.56</b>	<b>498.93</b>

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

83. The Petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses, in terms of Regulation 70(1) of the 2019 Tariff Regulations. The Petitioner shall be entitled for reimbursement of 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 and RLDC Fees and Charges**

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

### **Goods and Services Tax**

85. The Petitioner has submitted that submitted that if GST is levied at any rate and at any point of time in future on charges of transmission of electricity,



the same shall be borne and additionally paid by the Respondent(s) to the Petitioner and the same shall be charged and billed separately by the Petitioner. Further additional taxes, if any, are to be paid by the Petitioner on account of demand from Government/ Statutory Authorities, the same may be allowed to be recovered from the beneficiaries.

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

### **Security Expenses**

87. The Petitioner has submitted that security expenses in respect of the transmission assets are not claimed in the instant petition and it would file a separate petition for claiming the overall security expenses and consequential IWC.

88. We have considered the submissions of the Petitioner. The Petitioner has claimed consolidated security expenses on projected basis for 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19 in Petition No. 260/MP/2020. The said petition has already been disposed of by the Commission vide order dated 3.8.2021 wherein the Commission has already approved security expenses from 1.4.2019 to 31.3.2024. Hence, security expenses will be shared in terms of the order dated 3.8.2021 in Petition No. 260/MP/2020. Therefore, the Petitioner's prayer in the instant petition for allowing it to file a separate petition for claiming the overall security expenses and consequential IWC has become infructuous.

### **Capital Spares**



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

### **Sharing of Transmission Charges**

90. During the tariff periods 2004-09 and 2009-14 (upto 30.6.2011), the transmission charges for inter-State transmission systems were being shared in accordance with the Tariff Regulations for the respective tariff periods. With effect from 1.7.2011, sharing of transmission charges for inter-State transmission systems was governed by the provisions of the 2010 Sharing Regulations. However, with effect from 1.11.2020, the 2010 Sharing Regulations has been repealed and sharing is governed by the provisions of the 2020 Sharing Regulations. Accordingly, the liabilities of DICs for arrears of transmission charges determined through this order shall be computed DIC-wise in accordance with the provisions of respective Tariff Regulations and Sharing Regulations and shall be recovered from the concerned DICs through Bills under Regulation 15(2)(b) of the 2020 Sharing Regulations. Billing, collection and disbursement of transmission charges for subsequent period shall be recovered in terms of provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.

91. To summarise:

- a) The revised AFC allowed in respect of the transmission assets from COD to 31.3.2009 as per the APTEL's judgments are as follows:

Asset	(₹ in lakh)				
	2004-05 (Pro-rata for 1 month)	2005-06	2006-07	2007-08	2008-09
Asset-1	323.40	4550.51	4851.44	4992.79	5053.79
Asset-2	257.01	3234.30	3322.54	3667.97	3919.33



(₹ in lakh)

Asset	2005-06 (Pro-rata for 1 month)	2006-07	2007-08	2008-09
Asset-3	110.04	234.14	240.94	237.97

(₹ in lakh)

Asset	2006-07 (Pro-rata for 1 month)	2007-08	2008-09
Asset-4	60.45	252.47	253.54
Asset-5	99.12	414.29	420.72

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

(₹ in lakh)

Asset	2009-10	2010-11	2011-12	2012-13	2013-14
Asset-I	4914.73	4961.19	5086.34	5009.07	4933.25
Asset-II	4667.45	4635.88	4560.38	4475.01	4414.99
Asset-III	612.30	615.84	615.61	610.30	615.08

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

(₹ in lakh)

Asset	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-I	4885.00	4873.15	4916.30	3801.95	3809.63
Asset-II	4253.85	4158.54	4056.79	3918.33	3792.56
Asset-III	600.72	591.01	580.61	570.58	562.09

d) AFC allowed in respect of the transmission assets for 2019-24 tariff period are as follows:

(₹ in lakh)

Asset	2019-20	2020-21	2021-22	2022-23	2023-24
Asset-I	4566.99	4549.18	4558.13	4613.32	4680.62
Asset-II	2298.26	2297.09	2377.40	2478.36	2501.24
Asset-III	357.98	417.02	511.88	510.56	498.93

92. Annexure-I given hereinafter forms part of the order.

93. This order disposes of Petition No. 115/TT/2020 in terms of the above discussion and findings.

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

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

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



## Annexure-I

Asset-I	Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations (₹ in lakh)				
					2014-15	2015-16	2016-17	2017-18	2018-19
	Building	824.12	824.12	3.34	27.53	27.53	27.53	Spreading	
	Sub Station	36002.43	36002.43	5.28	1900.93	1900.93	1900.93		
	PLCC	25.06	25.06	6.33	1.59	1.59	1.59		
	<b>TOTAL</b>	<b>36851.61</b>	<b>36851.61</b>		<b>1930.04</b>	<b>1930.04</b>	<b>1930.04</b>	<b>746.40</b>	<b>746.40</b>
	<b>Average Gross Block (₹ in lakh)</b>				36851.61	36851.61	36851.61	36851.61	36851.61
	<b>Weighted Average Rate of Depreciation (in %)</b>				5.24	5.24	5.24	2.03	2.03

Asset-II	Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	Decapitalization 2017-18 (₹ in lakh)	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations (₹ in lakh)				
						2014-15	2015-16	2016-17	2017-18	2018-19
	Transmission Line	22539.59	0.00	22539.59	5.28	1190.09	1190.09	1190.09	1190.09	1190.09
	Sub Station	4862.97	619.62	4243.35	5.28	256.76	256.76	256.76	240.41	224.05
	PLCC	84.36	0.00	84.36	6.33	5.34	5.34	5.34	5.34	5.34
	<b>TOTAL</b>	<b>27486.92</b>	<b>619.62</b>	<b>26867.30</b>		<b>1452.20</b>	<b>1452.20</b>	<b>1452.20</b>	1435.84	1419.48
	<b>Average Gross Block (₹ in lakh)</b>				27486.92	27486.92	27486.92	27177.11	26867.30	
	<b>Weighted Average Rate of Depreciation (in %)</b>				5.28	5.28	5.28	5.28	5.28	



Asset-III	Particulars	Admitted capital Cost as on 1.4.2014 (₹ in lakh)	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations (₹ in lakh)				
					2014-15	2015-16	2016-17	2017-18	2018-19
	Freehold Land	2.60	2.60	0.00	0.00	0.00	0.00	0.00	0.00
	Building	103.88	103.88	3.34	3.47	3.47	3.47	3.47	3.47
	Sub Station	3349.86	3349.86	5.28	176.87	176.87	176.87	176.87	176.87
	<b>TOTAL</b>	<b>3456.34</b>	<b>3456.34</b>		<b>180.34</b>	<b>180.34</b>	<b>180.34</b>	<b>180.34</b>	<b>180.34</b>
	<b>Average Gross Block (₹ in lakh)</b>				3456.34	3456.34	3456.34	3456.34	3456.34
	<b>Weighted Average Rate of Depreciation (in %)</b>				5.22	5.22	5.22	5.22	5.22

