

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 389/TT/2019

Coram:

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

Date of order: 06.07.2021

In the matter of:

Approval under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and revision of transmission tariff of 2004-09 and 2009-14 tariff periods, truing up of transmission tariff of 2014-19 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of 2019-24 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for the Combined Asset-1 comprising of 400/220 kV Damoh Sub-station along with bays and 400 kV 63 MVAR Bus Reactor along with associated 400 kV bay at Damoh Sub-station and Combined Asset-2 comprising of 400/220 kV ICT-I at Damoh Sub-station along with bays and 400/220 kV, 315 MVA ICT-II along with associated 400 kV and 220 kV bays at Damoh Sub-station under WRSS-IV Transmission Scheme in Western Region.

And in the matter of:

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

.....Petitioner

Versus

1. Madhya Pradesh Power Management Company Ltd.,
Shakti Bhawan, Rampur, Jabalpur-482008.
2. Madhya Pradesh Power Transmission Company Ltd.,
Shakti Bhawan, Rampur, Jabalpur-482008.
3. Madhya Pradesh Audyogik Kendra Vikas Nigam (Indore) Ltd.,
3/54, Press Complex,
Agra-Bombay Road, Indore-452008.



4. Maharashtra State Electricity Distribution Co. Ltd.,
Hongkong Bank Building, 3rd Floor,
M.G. Road, Fort, Mumbai-400001.
5. Maharashtra State Electricity Transmission Co. Ltd.,
Prakashganga, 6th Floor, Plot No. C-19, E-Block,
Bandra Kurla Complex, Bandra (East) Mumbai-400051.
6. Gujarat Urja Vikas Nigam Ltd.,
Sardar Patel Vidyut Bhawan,
Race Course Road, Vadodara-390007.
7. Gujarat Energy Transmission Corporation Ltd.,
Sardar Patel Vidyut Bhawan,
Race Course Road, Vadodara-390007.
8. Electricity Department,
Govt. of Goa, Vidyut Bhawan, Panaji,
Near Mandvi Hotel, Goa-403001.
9. Electricity Department,
Administration of Daman & Diu,
Daman-396210.
10. Electricity Department,
Administration of Dadra Nagar Haveli,
U. T., Silvassa-396230.
11. Chhattisgarh State Electricity Board,
P.O. Sunder Nagar, Dangania,
Raipur, Chhattisgarh-492013.
12. Chhattisgarh State Power Transmission Co. Ltd.,
State Load Despatch Building, Dangania, Raipur-492013.
13. Chhattisgarh State Power Distribution Co. Ltd.,
P.O. Sunder Nagar, Dangania,
Raipur, Chhattisgarh-492013.

.....Respondent(s)

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

For Respondent: Shri Anindya Kumar Khare, MPPMCL



ORDER

The instant petition has been filed by the Petitioner, Power Grid Corporation of India Ltd., a deemed transmission licensee, for revision of transmission tariff of 2004-09 and 2009-14 tariff periods; truing of the capital expenditure for the period from 1.4.2014 to 31.3.2019 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”); and for determination of tariff under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) for the period from 1.4.2019 to 31.3.2024 in respect of the following transmission assets under WRSS-IV Transmission Scheme in Western Region (hereinafter referred to as “the transmission project”):

Asset-I: 400/220 kV Damoh Sub-station along with associated bays;

Asset-II: ICT-I at Damoh Sub-station along with associated bays;

Asset-III: 400/220 kV 315 MVA ICT-II along with associated 400 kV and 220 kV bays at Damoh Sub-station;

Asset-IV: 400 kV 63 MVAR factor along with associated 400 kV bay at Damoh Sub-station.

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 is materialized as per regulation 49 of 2014 and regulation 67 of 2019 tariff regulation. The petitioner may be allowed to recover the deferred tax liability materialised directly without making any application before the commission as provided in the regulation.
- 4) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 70 (1) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019, and other expenditure (if any) in relation to the filing of petition.
- 5) Allow the petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the respondents in terms of Regulation 70 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.
- 6) Allow the petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2019-24 period, if any, from the respondents.
- 7) Allow the petitioner to 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.
- 8) Allow the petitioner to claim the capital spares at the end of tariff block as per actual.
- 9) 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”

3. Backdrop of the case

- a) The Investment Approval (I.A.) for the transmission project was accorded by the Board of Directors of the Petitioner's company vide Memorandum dated 19.4.2006 at an estimated cost of ₹9722.00 lakh including an IDC of ₹441.00 lakh (based on 4th Quarter 2005 price level).
- b) The Commission vide order dated 16.3.2010 in Petition No. 167/2009 determined the transmission tariff of the following transmission assets from their respective COD to 31.3.2009:
- i. 400/220 kV Damoh Sub-station along with associated bays (**Asset-I**);



- ii. ICT-I at Damoh Sub-station along with associated bays (**Asset-II**);
 - iii. 400/220 kV 315 MVA ICT-II along with associated 400 kV and 220 kV bays at Damoh Sub-station (**Asset-III**);
 - iv. 400 kV 63 MVAR factor along with associated 400 kV bay at Damoh Sub-station (**Asset-IV**).
- c) The dates of commercial operation of Asset-I, Asset-II, Asset-III and Asset-IV were 1.9.2008, 1.9.2008, 1.12.2008 and 1.1.2009 respectively.
- d) The Commission vide order dated 15.3.2011 in Petition No. 217/2010 combined Asset-I with Asset-IV and Asset-II with Asset-III and allowed the transmission tariff for 2009-14 tariff period:
- i. **Combined Asset-1** comprising of (a) 400/220 kV Damoh Sub-station along with associated bays and (b) 400 kV 63 MVAR factor along with associated 400 kV bay at Damoh Sub-station; and
 - ii. **Combined Asset-2** comprising of (a) ICT-I at Damoh Sub-station along with associated bays and (b) 400/220 kV 315 MVA ICT-II along with associated 400 kV and 220 kV bays at Damoh Sub-station.
- e) The notional COD of Combined Asset-1 and Combined Asset-2 were 1.1.2009 and 1.12.2008 respectively.
- f) The transmission tariff of the Combined Asset-1 and Combined Asset-2 for 2009-14 period was trued-up and transmission tariff for 2014-19 tariff period was determined vide order dated 22.1.2016 in Petition No. 365/TT/2014.
- g) The entire scope of the work as per I.A. is covered in the instant petition.
- h) The Petitioner has sought revision of transmission tariff approved for the 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 Appellate Tribunal for Electricity (APTEL) judgment dated 22.1.2007 in Appeal No. 81/2005 and batch matters and dated 13.6.2007 in Appeal No. 139/2006 and batch matters. The Petitioner has sought consequential revision of tariff allowed for 2009-14 tariff period and truing up of



tariff of 2014-19 tariff period and determination of tariff of 2019-24 tariff period for the transmission assets under the transmission project in Western Region.

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

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

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

Sr. No.	Issue	APTEL's decision/direction
I	Computation of outstanding loan at the beginning of the tariff period i.e. 1.4.2004	The Commission is required to recalculate the loan outstanding as on 31.3.2004 based on loan repayment on normative basis
II	Consequence of refinance of loan	Commission to consider the issue afresh
III	Treating depreciation available as deemed repayment of loan	Commission to make a fresh computation of outstanding loan
IV	Admissibility of depreciation up to 90%	Commission to consider the issue afresh
V	Cost of Maintenance Spares	Commission to consider the issue afresh



VI	Impact of de-capitalisation of the assets on cumulative repayment of Loan	The cumulative repayment of the loan proportionate to the assets decapitalized required to be reduced. Commission to act accordingly
VII	Non-consideration of normative transit loss for coal import	Commission to consider afresh the transit losses for coal imported from coal mines other than the dedicated ones
VIII	Foreign Exchange Rate Variation (FERV)	FERV has been kept as pass through to ensure that any liability or gain, if any, arising on account of any variation in foreign exchange rates is passed on to the beneficiary as held in order dated 4.10.2006 in Appeals No. 135 to 140 of 2005. Commission to act accordingly
IX	Computation of interest on loan in Singrauli Station	Net loan closing at the end of a year is reflected as net loan opening on the first day of the next year. Commission shall re-compute the interest accordingly

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

l) Based on APTEL's judgments dated 22.1.2007 and 13.6.2007, the Petitioner had sought re-determination 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.

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

n) Consequent to the Hon'ble Supreme Court's order dated 10.4.2018 in NTPC matters, Petition No. 121/2007 was listed for hearing on 8.1.2019. The Commission vide order dated 18.1.2019 in Petition No. 121/2007, directed the



Petitioner to submit its claim separately for the assets at the time of filing of trueing up petitions for the 2014-19 tariff period.

o) The instant petition was heard on 20.4.2021 and in view of APTEL's judgments dated 22.1.2007 and 13.6.2007 and the order of Hon'ble Supreme Court dated 10.4.2018, tariff is being revised. Period-wise transmission tariff is being re-worked based on the Tariff Regulations applicable for the respective tariff periods and suitable assumptions have been made at certain places and applied, which are indicated.

p) The capital cost of ₹2253.85 lakh as on COD for Asset-I, ₹1891.40 lakh as on COD for Asset-II, ₹1256.12 lakh as on COD for Asset-III and ₹1831.01 lakh as on COD for Asset-IV had been approved by the Commission vide order dated 16.3.2010 in Petition No. 167/2009. The tariff from COD to 31.3.2009 was worked out based on the admitted capital cost as stated above.

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

5. The Petitioner has served the petition on the Respondents and notice regarding filing of this petition has been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments or suggestions have been received from the general public in response to the aforesaid notice published in the newspaper by the Petitioner. Madhya Pradesh Power Management Company Limited (MPPMCL), Respondent No.1, has filed its reply vide affidavit dated 17.1.2020 and has raised the issue of revision of transmission tariff for 2004-09 and 2009-14 tariff periods and effective tax rates considered for grossing up of Return of Equity (RoE). The Petitioner has submitted its rejoinder vide affidavit dated 28.7.2020.



Re: Interest on Loan (IOL)

6. APTEL while dealing with the issue of computation of IoL, in judgement dated 22.1.2007 observed that IoL for the period from 1.4.1998 to 31.3.2001 shall be computed only on normative loan repayment as per its judgment dated 14.11.2006 in Appeal Nos. 94 and 96 of 2005. APTEL vide its judgment dated 14.11.2006 had set aside the Commission's methodology of computation of loan on the actual repayment basis or normative repayment whichever is higher and held that the Commission is required to adopt normative debt repayment methodology for working out IoL liability for the period from 1.4.1998 to 31.3.2001. In view of the above, the interest allowed for 2004-09 tariff period is revised on the basis of the normative debt repayment methodology.

Re: Additional Capital Expenditure (ACE)

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

Re: Depreciation

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



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

10. This order is issued considering the submissions made by the Petitioner in the Petition vide affidavit dated 18.9.2019, Petitioner's affidavit dated 3.8.2020 filed in compliance of Technical Validation letter, MPPMCL's reply vide affidavit dated 17.1.2020 and Petitioner's rejoinder to MPPMCL's reply filed vide affidavit dated 28.7.2020.

11. The issues raised by MPPMCL and the clarifications given by the Petitioner are considered in the relevant portions of this order.



12. The hearing in this matter was held on 20.4.2021 through video conference and the order was reserved. Having heard the representatives of the Petitioner, MPPMCL and after perusal of the materials on record, we proceed to dispose of the petition.

Revision of Transmission Charges Allowed for 2004-09 and 2009-14 Tariff Periods

2004-09 Period

13. The Commission vide order dated 16.3.2010 in Petition No. 167/2009 had determined the following transmission charges for Asset-I, Asset-II, Asset-III and Asset-IV from their respective COD to 31.3.2009:

(₹ in lakh)

Particulars	Asset-I	Asset-II	Asset-III	Asset-IV
	2008-09 (pro rata)	2008-09 (pro rata)	2008-09 (pro rata)	2008-09 (pro rata)
Depreciation	45.74	39.95	14.73	15.78
IoL	86.80	72.62	28.08	29.84
RoE	55.36	46.34	17.66	19.23
Advance against Depreciation	0.00	0.00	0.00	0.00
IWC	5.56	7.09	3.16	2.18
O&M Expenses	0.00	76.77	43.87	8.23
Total	193.46	242.77	107.49	75.26

14. The Petitioner has claimed the following revised transmission charges for Asset-I, Asset-II, Asset-III and Asset-IV from their respective COD to 31.3.2009:

(₹ in lakh)

Particulars	Asset-I	Asset-II	Asset-III	Asset-IV
	2008-09 (pro rata)	2008-09 (pro rata)	2008-09 (pro rata)	2008-09 (pro rata)
Depreciation	45.74	39.95	14.73	15.78
Interest on Loan	88.11	73.76	28.31	30.03
Return on Equity	55.36	46.34	17.66	19.23
Advance against Depreciation	0.00	0.00	0.00	0.00
Interest on Working Capital	5.59	7.12	3.16	2.19
O&M Expenses	-	76.77	43.87	8.23
Total	194.80	243.93	107.74	75.46



15. MPPMCL has submitted that the Commission may allow the revision in transmission tariff of 2004-09 and 2009-14 tariff periods after prudence check of the claim and calculations submitted by the Petitioner. In response, the Petitioner has submitted that the revision of transmission tariff is claimed on account of change in IoL and IWC to the extent of revision in IoL and maintenance spares in terms of judgments of APTEL dated 22.1.2007 and dated 13.6.2007 in Appeal Nos. 81 of 2005 and 139 of 2006 for 2004-09 period and consequent revised transmission tariff of 2009-14 period.

16. We have considered the submissions of the Petitioner and MPPMCL. The tariff is allowed in respect of Asset-I, Asset-II, Asset-III and Asset-IV on the basis of the following:

- a) The capital cost of ₹2253.85 lakh as on COD for Asset-I, ₹1891.40 lakh as on COD for Asset-II, ₹ 1256.12 lakh as on COD for Asset-III and ₹1831.01 lakh as on COD for Asset-IV as approved by the Commission vide order dated 16.3.2010 in Petition No. 167/2009;
- b) Weighted Average Rate of Interest on actual loan, Weighted Average Rate of Depreciation (WAROD), Rate of IWC and O&M Expenses as per order dated 16.3.2010 in Petition No. 167/2009;
- c) With respect to calculation of IoL, during the year 2008-09, moratorium period was availed by the Petitioner and no actual repayment of loan was done. Earlier, the Commission vide order 16.3.2010 in petition No. 167/2009 had considered depreciation provided during 2008-09 as loan repayment. Therefore, depreciation during 2008-09 has been considered as loan repayment in accordance with Regulation 56(i)(f) of the 2004 Tariff Regulations. The relevant extract of the Regulation 56(i)(f) of the 2004 Tariff Regulations which is as follows:

“56 (i) Interest on Loan Capital

(f) In case any moratorium period is availed of by the transmission licensee, depreciation provided for in the tariff during the years of moratorium shall be



treated as repayment during those years and interest on loan capital shall be calculated accordingly;"

d) Actual ACE of ₹11.10 lakh for Asset-I, ₹0.01 lakh for Asset-II, ₹10.56 lakh for Asset-III and ₹0.91 lakh for Asset-IV in 2008-09 period as approved by the Commission vide order dated 16.3.2010 in Petition No. 167/2009.

17. In view of the above, the revised transmission charges allowed for Asset-I, Asset-II, Asset-III and Asset-IV from their respective COD to 31.3.2009 is as follows:

(₹ in lakh)

Particulars	Asset-I	Asset-II	Asset-III	Asset-IV
	2008-09 (pro rata-7 months)	2008-09 (pro rata-7 months)	2008-09 (pro rata-4 months)	2008-09 (pro rata-3 months)
Depreciation	45.74	39.95	14.73	15.78
IoL	86.80	72.62	28.08	29.84
RoE	55.36	46.34	17.66	19.23
Advance against Depreciation	0.00	0.00	0.00	0.00
IWC	5.56	7.09	3.16	2.18
O&M Expenses	0.00	76.77	43.87	8.23
Total	193.46	242.77	107.50	75.26

18. The Annual Fixed Charges (AFC) allowed for Asset-I, Asset-II, Asset-III and Asset-IV from their respective COD to 31.3.2009 vide order dated 16.3.2010 in Petition No. 167/2009, the revised AFC claimed in the instant petition and AFC allowed in the instant order is as follows:

(₹ in lakh)

Particulars	Asset-I	Asset-II	Asset-III	Asset-IV
	2008-09 (pro rata-7 months)	2008-09 (pro rata-7 months)	2008-09 (pro rata-4 months)	2008-09 (pro rata-3 months)
AFC allowed vide order dated 16.3.2010 in Petition No. 167/2009	193.46	242.77	107.49	75.26
AFC claimed by the Petitioner in the instant petition	194.80	243.93	107.74	75.46
AFC approved after true up in the instant order	193.46	242.77	107.50	75.26



2009-14 Period

19. The Commission vide order dated 15.3.2011 in Petition No. 217/2010 had allowed the tariff for the Combined Asset-1 and Combined Asset-2 for 2009-14 period and subsequently vide order dated 22.1.2016 in Petition No. 365/TT/2014 had trued-up the tariff allowed for 2009-14 period which is as follows:

Combined Asset-1

(₹ in lakh)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	212.45	219.94	231.74	239.76	240.33
IoL	258.10	246.64	239.39	226.72	204.86
RoE	233.01	249.77	263.01	271.84	275.75
IWC	17.28	17.70	18.23	18.49	18.30
O&M Expenses	52.40	55.40	58.57	61.92	65.46
Total	773.25	789.45	810.95	818.73	804.70

Combined Asset-2

(₹ in lakh)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	174.03	187.34	192.55	192.96	195.17
IoL	208.16	210.20	198.77	181.36	165.80
RoE	188.82	213.45	219.62	220.28	225.39
IWC	28.15	29.92	30.90	31.59	32.52
O&M Expenses	324.88	343.48	363.14	383.88	405.84
Total	924.05	984.39	1004.98	1010.08	1024.73

20. The Petitioner has claimed the revised transmission charges in respect of the Combined Asset-1 and Combined Asset-2 for 2009-14 tariff period in the instant petition:

Combined Asset-1

(₹ in lakh)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	212.45	219.94	231.74	239.76	240.33
IoL	263.89	252.42	245.16	232.46	210.60
RoE	233.01	249.77	263.01	271.84	275.75
IWC	17.41	17.82	18.35	18.61	18.42
O&M Expenses	52.40	55.40	58.57	61.92	65.46



Total	779.15	795.35	816.83	824.59	810.56
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Combined Asset-2

Particulars	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	174.03	187.34	192.55	192.96	195.17
IoL	213.29	215.31	203.86	186.45	170.89
RoE	188.82	213.45	219.62	220.28	225.39
IWC	28.26	30.02	31.00	31.70	32.63
O&M Expenses	324.88	343.48	363.14	383.88	405.84
Total	929.28	989.60	1010.18	1015.28	1029.92

21. We have considered the Petitioner's claim. The tariff is allowed in respect of the Combined Asset-1 and Combined Asset-2 on the basis of following:

- a) Admitted capital cost, as on 1.4.2009, of ₹4096.87 lakh for Combined Asset-1 and ₹3158.09 lakh for Combined Asset-2;
- b) Weighted Average Rate of Interest on actual loan, WAROD, Rate of IWC and O&M Expenses derived/ adopted from order dated 22.1.2016 in Petition No. 365/TT/2014; and
- c) Actual ACE of ₹593.47 lakh for Combined Asset-1 and of ₹713.57 lakh for Combined Asset-2 as approved by the Commission vide order dated 22.1.2016 in Petition No. 365/TT/2014.

22. In view of the above, the revised transmission charges allowed in respect of the Combined Asset-1 and Combined Asset-2 for 2009-14 tariff period are as follows.

Combined Asset-1

Particulars	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	212.45	219.94	231.74	239.76	240.33
IoL	258.10	246.64	239.39	226.72	204.86
RoE	233.01	249.77	263.01	271.84	275.75
IWC	17.28	17.70	18.23	18.49	18.30
O&M Expenses	52.40	55.40	58.57	61.92	65.46
Total	773.25	789.45	810.94	818.73	804.70



Combined Asset-2

Particulars	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	174.03	187.34	192.55	192.96	195.17
IoL	208.16	210.20	198.77	181.36	165.80
RoE	188.82	213.45	219.62	220.28	225.39
IWC	28.15	29.92	30.90	31.59	32.52
O&M Expenses	324.88	343.48	363.14	383.88	405.84
Total	924.04	984.39	1004.97	1010.07	1024.72

23. AFC allowed for the Combined Asset-1 and Combined Asset-2 for 2009-14 period vide order dated 22.1.2016 in Petition No. 365/TT/2014, the revised AFC claimed in the instant petition and AFC approved in the instant order are as follows:

Combined Asset-1

Particulars	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
AFC allowed vide order dated 22.1.2016 in Petition No. 365/TT/2014	773.25	789.45	810.95	818.73	804.70
AFC claimed by the Petitioner in the instant petition	779.15	795.35	816.83	824.59	810.56
AFC approved after true up in the instant order	773.25	789.45	810.94	818.73	804.70

Combined Asset-2

Particulars	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
AFC allowed vide order dated 22.1.2016 in Petition No. 365/TT/2014	924.05	984.39	1004.98	1010.08	1024.73
AFC claimed by the Petitioner in the instant petition	929.28	989.60	1010.18	1015.28	1029.92
AFC approved after true up in the instant order	924.04	984.39	1004.97	1010.07	1024.72

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

24. The details of the trued-up transmission charges claimed by the Petitioner in respect of the Combined Asset-1 and Combined Asset-2 are as follows:



Combined Asset-1

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	240.51	240.51	240.51	240.51	240.51
IoL	188.30	165.83	143.36	120.89	98.42
RoE	276.14	277.41	277.27	277.27	278.01
IWC	19.56	19.18	18.77	18.37	18.00
O&M Expenses	60.30	62.30	64.37	66.51	68.71
Total	784.81	765.23	744.28	723.55	703.65

Combined Asset-2

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	197.30	197.30	197.30	197.30	197.30
IoL	155.11	136.74	118.37	100.00	81.64
RoE	227.94	228.99	228.87	228.87	229.49
IWC	34.01	34.30	34.58	34.89	35.24
O&M Expenses	373.86	386.26	399.10	412.32	426.02
Total	988.22	983.59	978.22	973.38	969.69

25. The details of IWC claimed by the Petitioner in respect of the Combined Asset-1 and Combined Asset-2 are as follows:

Combined Asset-1

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	5.03	5.19	5.36	5.54	5.73
Maintenance Spares	9.05	9.35	9.66	9.98	10.31
Receivables	130.80	127.54	124.05	120.59	117.28
Total Working Capital	144.88	142.08	139.07	136.11	133.32
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
IWC	19.56	19.18	18.77	18.37	18.00

Combined Asset-2

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	31.16	32.19	33.26	34.36	35.50
Maintenance Spares	56.08	57.94	59.87	61.85	63.90
Receivables	164.71	163.93	163.04	162.23	161.62
Total Working Capital	251.95	254.06	256.17	258.44	261.02
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
IWC	34.01	34.30	34.58	34.89	35.24



Capital Cost

26. The Commission vide order 22.1.2016 in Petition No. 365/TT/2014 had allowed capital cost, as on 1.4.2014, of ₹4690.34 lakh for Combined Asset-1 and of ₹3871.66 lakh for Combined Asset-2 and the same has been claimed by the Petitioner as on 1.4.2014. The Petitioner has not claimed any ACE during 2014-19 tariff period. Accordingly, the capital cost considered for determination of tariff of 2014-19 tariff period in respect of Combined Asset-1 and Combined Asset-2 is as follows:

Combined Asset-1

(₹ in lakh)		
Capital cost as on 1.4.2014	ACE 2014-19	Capital cost as on 31.3.2019
4690.34	0.00	4690.34

Combined Asset-2

(₹ in lakh)		
Capital cost as on 1.4.2014	ACE 2014-19	Capital cost as on 31.3.2019
3871.66	0.00	3871.66

Debt-Equity Ratio

27. As per Regulation 19(3) of the 2014 Tariff Regulations, the debt-equity ratio allowed by the Commission for determination of tariff for the period ending on 31.3.2014 shall be considered. Accordingly, the debt-equity ratio for the period ending on 31.3.2014, considered for the purpose of truing up of tariff of 2014-19 tariff period has been considered. The details of the debt-equity ratio as on 1.4.2014 and 31.3.2019 of the Combined Asset-1 and Combined Asset-2 are as follows:

Combined Asset-1

Particulars	Capital Cost as on 1.4.2014 (₹ in lakh)	(in %)	Total Capital Cost as on 31.3.2019 (₹ in lakh)	(in %)
Debt	3283.25	70.00	3283.25	70.00
Equity	1407.09	30.00	1407.09	30.00
Total	4690.34	100.00	4690.34	100.00

Combined Asset-2



Particulars	Capital Cost as on 1.4.2014 (₹ in lakh)	(in %)	Total Capital Cost as on 31.3.2019 (₹ in lakh)	(in %)
Debt	2710.19	70.00	2710.19	70.00
Equity	1161.47	30.00	1161.47	30.00
Total	3871.66	100.00	3871.66	100.00

Depreciation

28. The Gross Block during 2014-19 tariff period has been depreciated at WAROD. WAROD at Annexure-1 has been worked out after taking into account the depreciation rates of assets as specified in the 2014 Tariff Regulations. The trued-up depreciation for 2014-19 tariff period in respect of the Combined Asset-1 and Combined Asset-2 is as follows:

Combined Asset-1

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	4690.34	4690.34	4690.34	4690.34	4690.34
ACE	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	4690.34	4690.34	4690.34	4690.34	4690.34
Average Gross Block	4690.34	4690.34	4690.34	4690.34	4690.34
Freehold Land	15.65	15.65	15.65	15.65	15.65
WAROD (in %)	5.13	5.13	5.13	5.13	5.13
Balance useful life of the asset (Year)	20	19	18	17	16
Lapsed life at the beginning of the year (Year)	5	6	7	8	9
Depreciable Value	4207.22	4207.22	4207.22	4207.22	4207.22
Depreciation during the year	240.50	240.50	240.50	240.50	240.50
Cumulative Depreciation at the end of the year	1446.24	1686.74	1927.24	2167.74	2408.24
Remaining Depreciable Value at the end of the year	2760.98	2520.48	2279.98	2039.48	1798.98

Combined Asset-2

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	3871.66	3871.66	3871.66	3871.66	3871.66
ACE	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	3871.66	3871.66	3871.66	3871.66	3871.66
Average Gross Block	3871.66	3871.66	3871.66	3871.66	3871.66



WAROD (in %)	5.10	5.10	5.10	5.10	5.10
Balance useful life of the asset (Year)	20	19	18	17	16
Lapsed life at the beginning of the year (Year)	5	6	7	8	9
Depreciable Value	3484.49	3484.49	3484.49	3484.49	3484.49
Depreciation during the year	197.30	197.30	197.30	197.30	197.30
Cumulative Depreciation at the end of the year	1194.03	1391.34	1588.64	1785.95	1983.25
Remaining Depreciable Value at the end of the year	2290.46	2093.16	1895.85	1698.55	1501.24

29. The details of depreciation approved vide order dated 22.1.2016 in Petition No. 365/TT/2014, depreciation claimed by the Petitioner in the instant petition and true-up depreciation in the instant order is as follows:

Combined Asset-1

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 22.1.2016 in Petition No. 365/TT/2014	240.50	240.50	240.50	240.50	240.50
Claimed by the Petitioner in the instant petition	240.51	240.51	240.51	240.51	240.51
Approved after true-up in this order	240.50	240.50	240.50	240.50	240.50

Combined Asset-2

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 22.1.2016 in Petition No. 365/TT/2014	197.30	197.30	197.30	197.30	197.30
Claimed by the Petitioner in the instant petition	197.30	197.30	197.30	197.30	197.30
Approved after true-up in this order	197.30	197.30	197.30	197.30	197.30

Interest on Loan (IoL)

30. The Petitioner has claimed the weighted average rate of IoL based on its actual loan portfolio and rate of interest. We have considered the submissions of the Petitioner and accordingly calculated IoL based on actual interest rate, in accordance



with Regulation 26 of the 2014 Tariff Regulations. Trued-up IoL allowed for the Combined Asset-1 and Combined Asset-2 for 2014-19 tariff period is as follows:

Combined Asset-1

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	3283.25	3283.25	3283.25	3283.25	3283.25
Cumulative Repayments up to Previous Year	1205.74	1446.24	1686.74	1927.24	2167.74
Net Loan-Opening	2077.51	1837.01	1596.51	1356.01	1115.51
Additions	0.00	0.00	0.00	0.00	0.00
Repayment during the year	240.50	240.50	240.50	240.50	240.50
Net Loan-Closing	1837.01	1596.51	1356.01	1115.51	875.01
Average Loan	1957.26	1716.76	1476.26	1235.76	995.26
Weighted Average Rate of Interest on Loan (in %)	9.3274	9.3253	9.3225	9.3189	9.3138
IoL	182.56	160.09	137.62	115.16	92.70

Combined Asset-2

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	2710.19	2710.19	2710.19	2710.19	2710.19
Cumulative Repayments up to Previous Year	996.73	1194.03	1391.34	1588.64	1785.95
Net Loan-Opening	1713.46	1516.16	1318.85	1121.55	924.24
Additions	0.00	0.00	0.00	0.00	0.00
Repayment during the year	197.30	197.30	197.30	197.30	197.30
Net Loan-Closing	1516.16	1318.85	1121.55	924.24	726.94
Average Loan	1614.81	1417.51	1220.20	1022.90	825.59
Weighted Average Rate of Interest on Loan (in %)	9.2910	9.2883	9.2848	9.2802	9.2738
IoL	150.03	131.66	113.29	94.93	76.56

31. The details of IoL allowed vide order dated 22.1.2016 in Petition No. 365/TT/2014, IoL claimed by the Petitioner in the instant petition and trued-up IoL in the instant order is as follows:

Combined Asset-1



(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 22.1.2016 in Petition No. 365/TT/2014	182.56	160.09	137.62	115.16	92.70
Claimed by the Petitioner in the instant petition	188.30	165.83	143.36	120.89	98.42
Approved after true-up in this order	182.56	160.09	137.62	115.16	92.70

Combined Asset-2

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 22.1.2016 in Petition No. 365/TT/2014	150.03	131.66	113.29	94.93	76.56
Claimed by the Petitioner in the instant petition	155.11	136.74	118.37	100.00	81.64
Approved after true-up in this order	150.03	131.66	113.29	94.93	76.56

Return on Equity (RoE)

32. The Petitioner has claimed RoE in respect of the Combined Asset-1 and Combined Asset-2 in terms of Regulations 24 and 25 of the 2014 Tariff Regulations. The Petitioner has submitted that it is liable to pay income tax at Minimum Alternate Tax (MAT) rates and has claimed following effective tax rates for 2014-19 tariff period:

Year	Claimed effective tax rate (in %)	Grossed-up RoE [Base Rate/(1-t)] (in %)
2014-15	21.018	19.625
2015-16	21.382	19.715
2016-17	21.338	19.705
2017-18	21.337	19.704
2018-19	21.549	19.758

33. MPPMCL has submitted that the Petitioner has grossed-up RoE on the basis of actual taxes paid during 2016-17 and 2017-18 and has not placed on record the assessment orders for 2016-17 and 2017-18. For 2018-19, the Petitioner has grossed-up RoE and has not claimed the effective tax rate based on actual taxes paid for 2018-19 period. MPPMCL has further submitted that the Petitioner's Income Tax Assessment Orders for Financial Years 2016-17, 2017-18 and 2018-19 have not been



finalized. MPPMCL has submitted that the Petitioner has neither submitted copy of assessment orders for 2014-15 and 2015-16 periods nor audited accounts in respect of actual taxes paid for 2016-17 and 2017-18 periods and in the absence of these essential documents, it is not possible to scrutinize the claim of the Petitioner in a proper way.

34. In response, the Petitioner has submitted that the assessment orders for years 2014-15, 2015-16 and 2016-17 have been issued by the Income Tax Department and Income Tax returns for years 2017-18 and 2018-19 have been filed. The Petitioner has further submitted that the assessment order for the years 2014-15 and 2015-16 was submitted in reply to Technical Validation letter in Petition No. 20/TT/2020 and a copy of the assessment order for the year 2016-17 has been filed in the instant petition along with the rejoinder.

35. We have considered the submissions of the Petitioner and MPPMCL. The Commission vide order dated 2.2.2021 in Petition No. 312/TT/2020 has already dealt with the above issue of MPPMCL observing that the Petitioner has submitted assessment orders issued by the Income Tax Department for the years 2014-15, 2015-16 and 2016-17 and Income Tax Returns have been filed by the Petitioner for the years 2017-18 and 2018-19. The Commission in the said order further observed that the Petitioner has submitted the documents as pointed out by MPPMCL. In view of our finding given in the order dated 2.2.2021 in Petition No. 312/TT/2020, no fresh consideration on this issue is required.

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



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

37. The MAT rates considered vide order dated 27.4.2020 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, is considered in the instant case as well, which is as follows:

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

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

Combined Asset-1

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	1407.09	1407.09	1407.09	1407.09	1407.09
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	1407.09	1407.09	1407.09	1407.09	1407.09
Average Equity	1407.09	1407.09	1407.09	1407.09	1407.09
RoE (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	20.961	21.342	21.342	21.342	21.549
Rate of RoE (in %)	19.610	19.705	19.705	19.705	19.758
RoE	275.93	277.27	277.27	277.27	278.01

Combined Asset-2

(₹ in lakh)



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	1161.47	1161.47	1161.47	1161.47	1161.47
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	1161.47	1161.47	1161.47	1161.47	1161.47
Average Equity	1161.47	1161.47	1161.47	1161.47	1161.47
RoE (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	20.961	21.342	21.342	21.342	21.549
Rate of RoE (in %)	19.610	19.705	19.705	19.705	19.758
RoE	227.76	228.87	228.87	228.87	229.48

39. The details of RoE allowed vide order dated 22.1.2016 in Petition No. 365/TT/2014, RoE claimed by the Petitioner in the instant petition and trued-up RoE in the instant order is as follows:

Combined Asset-1

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 22.1.2016 in Petition No. 365/TT/2014	275.93	275.93	275.93	275.93	275.93
Claimed by the Petitioner in the instant petition	276.14	277.41	277.27	277.27	278.01
Approved after true-up in this order	275.93	277.27	277.27	277.27	278.01

Combined Asset-2

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 22.1.2016 in Petition No. 365/TT/2014	227.76	227.76	227.76	227.76	227.76
Claimed by the Petitioner in the instant petition	227.94	228.99	228.87	228.87	229.49
Approved after true-up in this order	227.76	228.87	228.87	228.87	229.48

Operation & Maintenance Expenses (O&M Expenses)

40. The trued-up O&M Expenses claimed by the Petitioner are as follows:

Combined Asset-1

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
1 number of 400 kV Bus Reactor Bay (63 MVAR) (Damoh Sub-station)					



Claimed by the Petitioner in the instant petition	60.30	62.30	64.37	66.51	68.71
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Combined Asset-2

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
2 nos. 400 kV ICT Bays (Damoh Sub-station)					
6 nos. 220 kV Sub-station Bays (Damoh Sub-station)					
Claimed by the Petitioner in the instant petition	373.86	386.26	399.10	412.32	426.02

41. We have considered the submissions of the Petitioner. Regulation 29(3) of the 2014 Tariff Regulations specifies the norms for O&M Expenses in respect of the transmission assets. The norms specified in respect of the elements covered in the transmission assets are as follows:

Element	Norms for 2014-15	Norms for 2015-16	Norms for 2016-17	Norms for 2017-18	Norms for 2018-19
400 kV Sub-station	₹60.30 lakh/ bay	₹ 62.30 lakh/ bay	₹64.37 lakh/ bay	₹66.51 lakh/ bay	₹68.71 lakh/ bay
220 kV Sub-station	₹42.21 lakh/ bay	₹43.61 lakh/ bay	₹45.06 lakh/ bay	₹46.55 lakh/ bay	₹48.10 lakh/ bay

42. Trued-up O&M Expenses allowed in respect of the Combined Asset-1 and Combined Asset-2 for 2014-19 tariff period are as follows:

Combined Asset-1

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
1 number 400 kV sub-station Bays	60.30	62.30	64.37	66.51	68.71
Total	60.30	62.30	64.37	66.51	68.71

Combined Asset-2

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
2 numbers 400 kV sub-station Bays	120.60	124.60	128.74	133.02	137.42
6 numbers 220 kV sub-station Bays	253.26	261.66	270.36	279.30	288.60
Total	373.86	386.26	399.10	412.32	426.02

43. The details of O&M Expenses allowed vide order dated 22.1.2016 in Petition No. 365/TT/2014, O&M Expenses claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:



Combined Asset-1

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 22.1.2016 in Petition No. 365/TT/2014	60.30	62.30	64.37	66.51	68.71
Claimed by the Petitioner in the instant petition	60.30	62.30	64.37	66.51	68.71
Approved after true-up in this order	60.30	62.30	64.37	66.51	68.71

Combined Asset-2

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 22.1.2016 in Petition No. 365/TT/2014	373.86	386.26	399.10	412.32	426.02
Claimed by the Petitioner in the instant petition	373.86	386.26	399.10	412.32	426.02
Approved after true-up in this order	373.86	386.26	399.10	412.32	426.02

Interest on Working Capital (IWC)

44. IWC has been worked out as per the methodology provided in Regulation 28 of the 2014 Tariff Regulations and trued-up IWC allowed in respect of the Combined Asset-1 and Combined Asset-2 is as follows:

Combined Asset-1

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses (O&M Expenses for 1 month)	5.03	5.19	5.36	5.54	5.73
Maintenance Spares (15% of O&M Expenses)	9.05	9.35	9.66	9.98	10.31
Receivables (Equivalent to 2 months of annual fixed cost)	129.79	126.53	123.07	119.61	116.30
Total Working Capital	143.86	141.07	138.09	135.13	132.33
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
IWC	19.42	19.04	18.64	18.24	17.86

Combined Asset-2

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Interest on Working Capital					



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses (O&M Expenses for 1 month)	31.16	32.19	33.26	34.36	35.50
Maintenance Spares (15% of O&M Expenses)	56.08	57.94	59.87	61.85	63.90
Receivables (Equivalent to 2 months of annual fixed cost)	163.81	163.05	162.17	161.37	160.75
Total Working Capital	251.04	253.17	255.30	257.57	260.15
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
IWC	33.89	34.18	34.46	34.77	35.12

45. The details of IWC in respect of Combined Asset-1 and Combined Asset-2 allowed *vide* order dated 11.2.2016 in Petition No. 365/TT/2014, IWC claimed by the Petitioner and trued-up in the instant order is as follows:

Combined Asset-1

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed <i>vide</i> order dated 22.1.2016 in Petition No. 365/TT/2014	19.42	19.01	18.61	18.21	17.82
Claimed by the Petitioner in the instant petition	19.56	19.18	18.77	18.37	18.00
Approved after true-up in this order	19.42	19.04	18.64	18.24	17.86

Combined Asset-2

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed <i>vide</i> order dated 22.1.2016 in Petition No. 365/TT/2014	33.89	34.15	34.44	34.75	35.08
Claimed by the Petitioner in the instant petition	34.01	34.30	34.58	34.89	35.24
Approved after true-up in this order	33.89	34.18	34.46	34.77	35.12

Approved Annual Fixed Charges of 2014-19 Tariff Period

46. The trued-up AFC approved in respect of the Combined Asset-1 and Combined Asset-2 for 2014-19 tariff period are as follows:

Combined Asset-1

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
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Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	240.50	240.50	240.50	240.50	240.50
IoL	182.56	160.09	137.62	115.16	92.70
RoE	275.93	277.27	277.27	277.27	278.01
IWC	19.42	19.04	18.64	18.24	17.86
O&M Expenses	60.30	62.30	64.37	66.51	68.71
Total	778.71	759.20	738.40	717.68	697.78

Combined Asset-2

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	197.30	197.30	197.30	197.30	197.30
IoL	150.03	131.66	113.29	94.93	76.56
RoE	227.76	228.87	228.87	228.87	229.48
IWC	33.89	34.18	34.46	34.77	35.12
O&M Expenses	373.86	386.26	399.10	412.32	426.02
Total	982.85	978.27	973.03	968.19	964.49

47. Accordingly, the Annual Transmission Charges allowed vide order dated 22.1.2016 in Petition No. 365/TT/2014, claimed by the Petitioner in the instant petition and as approved after true-up in the instant order is as follows:

Combined Asset-1

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 22.1.2016 in Petition No. 365/TT/2014	778.71	757.84	737.03	716.31	695.65
Claimed by the Petitioner in the instant petition	784.81	765.23	744.28	723.55	703.65
Approved after true-up in this order	778.71	759.20	738.40	717.68	697.78

Combined Asset-2

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 22.1.2016 in Petition No. 365/TT/2014	982.85	977.14	971.90	967.06	962.73
Claimed by the Petitioner in the instant petition	988.22	983.59	978.22	973.38	969.69
Approved after true-up in this order	982.85	978.27	973.03	968.19	964.49



Determination of Annual Fixed Charges of 2019-24 Tariff Period

48. The Petitioner has combined the Combined Asset-1 and Combined Asset-2 into a single asset and has claimed the following transmission charges for 2019-24 tariff period for the Combined Asset:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	437.81	437.81	186.51	186.51	186.51
IoL	139.24	98.43	69.29	51.64	33.90
RoE	507.50	507.50	507.50	507.50	507.50
IWC	36.28	36.44	32.94	33.43	33.87
O&M Expenses	458.25	474.58	491.19	508.68	525.91
Total	1579.08	1554.76	1287.43	1287.76	1287.69

49. The details of IWC claimed by the Petitioner for the Combined Asset is as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	38.19	39.55	40.93	42.39	43.83
Maintenance Spares	68.74	71.19	73.68	76.30	78.89
Receivables	194.15	191.68	158.72	158.76	158.32
Total Working Capital	301.08	302.42	273.33	277.45	281.04
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
IWC	36.28	36.44	32.94	33.43	33.87

Effective Date of Commercial Operation (E-COD)

50. The Petitioner has claimed E-COD of the Combined Asset as 18.12.2008. Based on the trued-up admitted capital cost and actual COD of the Combined Asset-1 and Combined Asset-2, the same E-COD is worked out as follows:

Asset	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Actual COD	Number of days from last COD	Weightage of cost (in %)	Weighted days	Effective COD
Combined Asset-1	4690.34	1.1.2009	0	54.78	0	18.12.2008
Combined Asset-2	3871.66	1.12.2008	31	45.22	14.018	
Total	8562.00			100	14.018	



51. E-COD is used to determine the lapsed life of the project as a whole, which works out as 10 (ten) years as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from E-COD)

Weighted Average Life (WAL)

52. The life as defined in Regulation 33 of the 2019 Tariff Regulations has been considered for determination of WAL.

53. The Combined Asset may have multiple elements such as land, building, transmission line, sub-station and PLCC and each element may have different span of life. Therefore, the concept of WAL has been used as the useful life of the project as a whole.

54. WAL has been determined based on the admitted capital cost of individual elements as on 31.3.2019 and their respective life as stipulated in the 2019 Tariff Regulations. The element-wise life as defined in the 2004 Tariff Regulations and 2009 Tariff Regulations prevailing at the time of actual COD of individual transmission assets has been ignored for this purpose. The life as defined in the 2019 Tariff Regulations has been considered for determination of WAL. Accordingly, WAL of the Combined Asset has been worked out as 25 years as shown under:

Particulars	Life (in years) (1)	Capital Cost as on 31.3.2019 (₹ in lakh) (2)	Weighted Cost (₹ in lakh) (3) = (1) * (2)	Weighted Average Life of Asset (in years) (4) = (3) / (2)
Building Civil Works & Colony	25	725.41	18135.25	25
Sub-Station	25	7760.91	194,022.75	
PLCC	15	60.03	900.45	
Total		8546.35	213058.45	



55. WAL as on 1.4.2019 as determined above is applicable prospectively (i.e. for 2019-24 tariff period onwards) and no retrospective adjustment of depreciation in previous tariff period is required to be done. As discussed above, E-COD of the Combined Asset is 18.12.2008 and the lapsed life of the project as a whole works out as 10 years as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from E-COD). Accordingly, WAL has been used to determine the remaining useful life as on 31.3.2019 to be 15 years.

Capital Cost

56. Regulation 19 of the 2019 Tariff Regulations provides 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 ash disposal and utilization including handling and transportation facility;
(d) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
(e) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal up to the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and
(f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.

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

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

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

(a) The assets forming part of the project, but not in use, as declared in the tariff petition;
(b) De-capitalised Assets after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:

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



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

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

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

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

57. The Petitioner has claimed capital cost of ₹8562.00 lakh as on 31.3.2019 for the Combined Asset. The same has been worked out by the Commission as on 31.3.2019 and considered as the opening capital cost as on 1.4.2019 for determination of tariff in accordance with Regulation 19 of the 2019 Tariff Regulations.

58. The Petitioner has not projected any ACE during 2019-24 in respect of the Combined Asset. Accordingly, the capital cost considered for 2019-24 tariff period is as follows:

(₹ in lakh)

Total Capital Cost as on 1.4.2019	Projected ACE	Total Capital Cost as on 31.3.2024
	2019-24	
8562.00	0.00	8562.00

Debt-Equity Ratio

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

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

Provided that:

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



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

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

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

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

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

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

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

60. The debt-equity ratio considered for the purpose of computation of tariff for 2019-24 tariff period are as follows:

Particulars	Capital Cost as on 1.4.2019 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	5993.44	70.00	5993.44	70.00
Equity	2568.56	30.00	2568.56	30.00
Total	8562.00	100.00	8562.00	100.00



Depreciation

61. Regulations 33(1), 33(2) and 33(5) of the 2019 Tariff Regulations provides as follows:

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

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

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

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

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

62. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation up to 31.3.2019. WAROD has been worked out at Annexure-2 taking into account the depreciation rates as specified in the 2019 Tariff Regulations. The Combined Asset has already completed 12 years of life as on 31.3.2021 and, therefore, the remaining depreciable value as on 31.3.2021 has been spread across the balance useful life in accordance with Regulation 33(5) of the 2019 Tariff Regulations. The depreciation allowed in respect of the Combined Asset for 2019-24 period is as follows:

(₹ in lakh)



Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	8562.00	8562.00	8562.00	8562.00	8562.00
Addition during the year 2019-24 due to projected ACE	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	8562.00	8562.00	8562.00	8562.00	8562.00
Average Gross Block	8562.00	8562.00	8562.00	8562.00	8562.00
Freehold Land	15.65	15.65	15.65	15.65	15.65
WAROD (in %)	5.11	5.11	2.18	2.18	2.18
Balance useful life of the asset (Year)	15	14	13	12	11
Lapsed life at the beginning of the year (Year)	10	11	12	13	14
Depreciable Value	7691.72	7691.72	7691.72	7691.72	7691.72
Depreciation during the year	437.80	437.80	186.51	186.51	186.51
Cumulative Depreciation at the end of the year	4829.29	5267.10	5453.61	5640.12	5826.62
Remaining Depreciable Value at the end of the year	2862.42	2424.62	2238.11	2051.60	1865.09

Interest on Loan (IoL)

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

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

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

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

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

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

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



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

(6) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.

(7) The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing.”

64. The weighted average rate of IoL has been considered on the basis of rate prevailing as on 1.4.2019. The Petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, during 2019-24 tariff period will be adjusted. We have considered the submission of the Petitioner. The floating rate of interest, if any, shall be considered at the time of true up. Therefore, IoL has been allowed in accordance with Regulation 32 of the 2019 Tariff Regulations as follows:

	(₹ in lakh)				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	5993.44	5993.44	5993.44	5993.44	5993.44
Cumulative Repayments up to Previous Year	4391.49	4829.29	5267.10	5453.61	5640.12
Net Loan-Opening	1601.95	1164.15	726.34	539.83	353.32
Additions	0.00	0.00	0.00	0.00	0.00
Repayment during the year	437.80	437.80	186.51	186.51	186.51
Net Loan-Closing	1164.15	726.34	539.83	353.32	166.82
Average Loan	1383.05	945.24	633.09	446.58	260.07
Weighted Average Rate of Interest on Loan (in %)	9.2873	9.2737	9.2475	9.1771	9.0093
IoL	128.45	87.66	58.54	40.98	23.43

Return on Equity (RoE)

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

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

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

Provided that return on equity in respect of additional capitalization after cut-off date beyond the original scope excluding additional capitalization due to Change in Law,



shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission system;

Provided further that:

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

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

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

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

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

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

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

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

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.



Illustration-

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

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

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

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

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

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

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

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

66. The Petitioner has submitted that MAT rate is applicable to the Petitioner's company. Accordingly, the MAT rate applicable in 2019-20 has been considered for the purpose of RoE, which shall be trued-up with actual tax rate in accordance with Regulation 31(3) of the 2019 Tariff Regulations. RoE allowed for the Combined Asset for 2019-24 tariff period is as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	2568.56	2568.56	2568.56	2568.56	2568.56
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	2568.56	2568.56	2568.56	2568.56	2568.56
Average Equity	2568.56	2568.56	2568.56	2568.56	2568.56
RoE (Base Rate) (in %)	15.50	15.50	15.50	15.50	15.50
MAT Rate for respective year (in %)	17.472	17.472	17.472	17.472	17.472
Rate of RoE (in %)	18.782	18.782	18.782	18.782	18.782
RoE	482.43	482.43	482.43	482.43	482.43



Operation & Maintenance Expenses (O&M Expenses)

67. The O&M Expenses claimed by the Petitioner in respect of Combined Asset for 2019-24 tariff period are as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
3 numbers 400 kV sub-station Bays	96.45	99.84	103.35	106.98	110.73
6 numbers 220 kV sub-station Bays	135.06	139.80	144.72	149.76	155.04
2 numbers 400 kV sub-station ICTs (315 MVA)	225.54	233.74	241.92	250.74	258.94
PLCC (2% of ₹60.03 lakh)	1.20	1.20	1.20	1.20	1.20
Total	458.25	474.58	491.19	508.68	525.91

68. The norms specified under Regulations 35(3)(a) and 35(4) of the 2019 Tariff Regulations provide as follows:

“35 Operation and Maintenance Expenses:

...

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

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Norms for sub-station Bays (₹ Lakh per bay)					
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
Norms for Transformers (₹ Lakh per MVA)					
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
Norms for AC and HVDC lines (₹ Lakh per km)					
Single Circuit (Bundled Conductor with six or more	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single	0.252	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor	1.322	1.368	1.416	1.466	1.517



Double Circuit (Twin & Triple)	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single)	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple)	1.544	1.598	1.654	1.713	1.773
Norms for HVDC stations					
HVDC Back-to-Back stations (Rs Lakh per 500	834	864	894	925	958
Gazuwaka HVDC Back-to-Back station (₹ Lakh	1,666	1,725	1,785	1,848	1,913
500 kV Rihand-Dadri HVDC bipole scheme	2,252	2,331	2,413	2,498	2,586
±500 kV Talcher- Kolar HVDC bipole scheme	2,468	2,555	2,645	2,738	2,834
±500 kV Bhiwadi-Balia HVDC bipole scheme	1,696	1,756	1,817	1,881	1,947
±800 kV, Bishwanath-Agra HVDC bipole	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 year



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

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

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

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

69. We have considered the submissions of the Petitioner. The Petitioner has claimed O&M Expenses separately for PLCC under Regulation 35(4) of the 2019 Tariff Regulations @2% of its original project cost in the instant petition. The Petitioner has made similar claim in other petitions as well. Though PLCC is a communication system, it has been considered as part of the sub-station in the 2014 Tariff Regulations and the 2019 Tariff Regulations and the norms for sub-station have been specified accordingly. Accordingly, the Commission vide order dated 24.1.2021 in Petition No. 126/TT/2020 has already concluded that no separate O&M Expenses can be allowed for PLCC under Regulation 35(4) of the 2019 Tariff Regulations even though PLCC is a communication system. Therefore, the Petitioner's claim for separate O&M Expenses for PLCC @2% is not allowed.

70. The O&M Expenses has been worked out as per the as per the norms specified in the 2019 Tariff Regulations and the same are as follows:

	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
3 numbers of 400 kV sub-station bays					
Norms (₹ lakh/Bay)	32.15	33.28	34.45	35.66	36.91
Total	96.45	99.84	103.35	106.98	110.73



	2019-20	2020-21	2021-22	2022-23	2023-24
6 numbers of 220 kV sub-station bays					
Norms (₹ lakh/Bay)	22.51	23.30	24.12	24.96	25.84
Total	135.06	139.80	144.72	149.76	155.04
2 numbers of 400 kV sub-station ICTs (315 MVA each)					
Norms (₹ lakh/MVA)	0.358	0.371	0.384	0.398	0.411
Total	225.54	233.73	241.92	250.74	258.93
Total O&M Expenses allowed (₹ in lakh)	457.05	473.37	489.99	507.48	524.70

Interest on Working Capital (IWC)

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

“34. Interest on Working Capital

(1)...

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

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

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

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

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

“3.Definitions ...

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



72. The Petitioner has submitted that it has computed IWC for 2019-24 period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of IWC as 12.05%. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. RoI considered is 12.05% (SBI 1 year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20, whereas, RoI for 2020-21 onwards has been considered as 11.25% (SBI 1 year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points). The components of the working capital and interest thereon allowed is as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses (O&M Expenses for 1 month)	38.09	39.45	40.83	42.29	43.73
Maintenance Spares (15% of O&M Expenses)	68.56	71.01	73.50	76.12	78.71
Receivables (Equivalent to 45 days of annual fixed cost)	189.52	186.74	153.82	153.87	153.46
Total Working Capital	296.16	297.20	268.15	272.28	275.89
Rate of Interest (in %)	12.05	11.25	11.25	11.25	11.25
IWC	35.69	33.43	30.17	30.63	31.04

Annual Fixed Charges of 2019-24 Tariff Period

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

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	437.80	437.80	186.51	186.51	186.51
IoL	128.45	87.66	58.54	40.98	23.43
RoE	482.43	482.43	482.43	482.43	482.43
IWC	35.69	33.43	30.17	30.63	31.04
O&M Expenses	457.05	473.37	489.99	507.48	524.70
Total	1541.42	1514.69	1247.64	1248.03	1248.10



Filing Fee and the Publication Expenses

74. The Petitioner has sought reimbursement of fee paid by it for filing the Petition and publication expenses. Regulation 70(1) of the 2019 Tariff Regulations provides for reimbursement of filing fees and publication paid by the Petitioner. Accordingly, the Petitioner is entitled for reimbursement of the filing fees and publication expenses in connection with the present petition, directly from the beneficiaries on pro-rata basis in accordance with Regulation 70(1) of the 2019 Tariff Regulations.

Licence Fee & RLDC Fees and Charges

75. The Petitioner has claimed reimbursement of licence fee in accordance with Regulation 70(4) of the 2019 Tariff Regulations for 2019-24 tariff period. The Petitioner has also claimed recovery of RLDC fee and charges in accordance with Regulations 70(3) of the 2019 Tariff Regulations for 2019-24 tariff period. The Petitioner is allowed reimbursement of licence fee and recovery of RLDC fee and charges in terms of 2019 Tariff Regulations.

Goods and Services Tax (GST)

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

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



Security Expenses

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

79. We have considered the submissions of the Petitioner. We are of the view that the Petitioner should claim security expenses for all the transmission assets in one petition. It is observed that the Petitioner has already filed the Petition No. 260/MP/2020 claiming consolidated security expenses on projected basis for 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19. Therefore, security expenses will be dealt with in Petition No. 260/MP/2020 in accordance with the applicable provisions of the 2019 Tariff Regulations.

Capital Spares

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



Sharing of Transmission Charges

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

82. To summarise:

- a) The revised AFC approved for Asset-I, Asset-II, Asset-III and Asset-IV for 2004-09 tariff period are:

(₹ in lakh)

Asset-I	Asset-II	Asset-III	Asset-IV
2008-09 (pro-rata 7 months)	2008-09 (pro-rata 7 months)	2008-09 (pro-rata 4 months)	2008-09 (pro-rata 3 months)
193.46	242.77	107.50	75.26

- b) The consequential revision of AFC approved for the Combined Asset-1 and Combined Asset-2 of 2009-14 tariff period are:

Combined Asset-1

(₹ in lakh)



2009-10	2010-11	2011-12	2012-13	2013-14
773.25	789.45	810.94	818.73	804.70

Combined Asset-2

(₹ in lakh)

2009-10	2010-11	2012-13	2013-14	2014-15
924.04	984.39	1004.97	1010.07	1024.72

c) The trued-up AFC approved for the Combined Asset-1 and Combined Asset-2 of 2014-19 tariff period are:

Combined Asset-1

(₹ in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
778.71	759.20	738.40	717.68	697.78

Combined Asset-2

(₹ in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
982.85	978.27	973.03	968.19	964.49

d) AFC allowed for the Combined Asset of 2019-24 tariff period in this order are:

(₹ in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
1541.42	1514.69	1247.64	1248.03	1248.10

83. Annexure-1 and Annexure-2 given hereinafter shall form part of the order.

84. This order disposes of Petition No. 389/TT/2019 in terms of the above discussions and findings.

sd/-
(Pravas Kumar Singh)
Member

sd/-
(Arun Goyal)
Member

sd/-
(I. S. Jha)
Member

sd/-
(P. K. Pujari)
Chairperson



Combined Asset-1

2014-19 Capital Expenditure	Combined Admitted Capital Cost as on 1.4.2014 /	ACE allowed (₹ in lakh)	Admitted Capital Cost as on 31.3.2019	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)				
		Total			2014-15	2015-16	2016-17	2017-18	2018-19
Land - Freehold	15.65	0.00	15.65	-	0.00	0.00	0.00	0.00	0.00
Land - Leasehold	0.00	0.00	0.00	3.34	0.00	0.00	0.00	0.00	0.00
Building Civil Works & Colony	348.77	0.00	348.77	3.34	11.65	11.65	11.65	11.65	11.65
Transmission Line	0.00	0.00	0.00	5.28	0.00	0.00	0.00	0.00	0.00
Sub Station	4283.81	0.00	4283.81	5.28	226.19	226.19	226.19	226.19	226.19
PLCC	42.11	0.00	42.11	6.33	2.67	2.67	2.67	2.67	2.67
IT Equipment (Incl. Software)	0.00	0.00	0.00	5.28	0.00	0.00	0.00	0.00	0.00
Total	4690.34	0.00	4690.34	Total	240.50	240.50	240.50	240.50	240.50
Average Gross Block (₹ in lakh)					4690.34	4690.34	4690.34	4690.34	4690.34
Weighted Average Rate of Depreciation					5.13%	5.13%	5.13%	5.13%	5.13%

Combined Asset-2

2014-19 Capital Expenditure	Combined Admitted Capital Cost as on 1.4.2014 / COD	ACE (₹ in lakh)	Admitted Capital Cost as on 31.3.2019	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)				
		Total			2014-15	2015-16	2016-17	2017-18	2018-19
Land - Freehold	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00
Land - Leasehold	0.00	0.00	0.00	3.34	0.00	0.00	0.00	0.00	0.00
Building Civil Works & Colony	376.64	0.00	376.64	3.34	12.58	12.58	12.58	12.58	12.58
Transmission Line	0.00	0.00	0.00	5.28	0.00	0.00	0.00	0.00	0.00
Sub Station	3477.10	0.00	3477.10	5.28	183.59	183.59	183.59	183.59	183.59
PLCC	17.92	0.00	17.92	6.33	1.13	1.13	1.13	1.13	1.13
IT Equipment (Incl. Software)	0.00	0.00	0.00	5.28	0.00	0.00	0.00	0.00	0.00
Total	3871.66	0.00	3871.66	Total	197.30	197.30	197.30	197.30	197.30
Average Gross Block (₹ in lakh)					3871.66	3871.66	3871.66	3871.66	3871.66
Weighted Average Rate of Depreciation					5.10%	5.10%	5.10%	5.10%	5.10%



ANNEXURE-2

2019-24 Capital Expenditure	Combined Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	ACE (₹ in lakh)	Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)				
		Total			2019-20	2020-21	2021-22	2022-23	2023-24
Land - Freehold	15.65	0.00	15.65	-	0.00	0.00	Spreading		
Land - Leasehold	0.00	0.00	0.00	3.34	0.00	0.00			
Building Civil Works & Colony	725.41	0.00	725.41	3.34	24.23	24.23			
Transmission Line	0.00	0.00	0.00	5.28	0.00	0.00			
Sub Station	7760.91	0.00	7760.91	5.28	409.78	409.78			
PLCC	60.03	0.00	60.03	6.33	3.80	3.80			
IT Equipment (Incl. Software)	0.00	0.00	0.00	15.00	0.00	0.00			
Total	8562.00	0.00	8562.00	Total	437.80	437.80	186.51	186.51	186.51
Average Gross Block (₹ in lakh)					8562.00	8562.00	8562.00	8562.00	8562.00
Weighted Average Rate of Depreciation					5.11%	5.11%	2.18%	2.18%	2.18%

