

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 211/TT/2020

Coram:

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

Date of order: 23.12.2021

In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and revision of transmission tariff of the 2001-04, 2004-09 and 2009-14 tariff periods and truing up of transmission tariff of the 2014-19 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of the 2019-24 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2019 for 400 kV D/C Kolhapur- Mapusa transmission line (Ckt. I and Ckt. II) in Western Region.

And in the Matter of:

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

.....Petitioner

Versus

1. Madhya Pradesh Power Management Company Limited,
Shakti Bhawan, Rampur,
Jabalpur - 482 008.
2. Madhya Pradesh Power Transmission Company Limited,
Shakti Bhawan, Rampur,
Jabalpur - 482 008.
3. Madhya Pradesh Audyogik Kendra,
Vikas Nigam (Indore) Limited,
3/54, Press Complex, Agra-Bombay Road, Indore - 452 008.
4. Maharashtra State Electricity Distribution Company Limited,
Hongkong Bank Building, 3rd Floor,
M.G. Road, Fort, Mumbai - 400 001.



5. Maharashtra State Electricity Transmission Company Limited,
Prakashganga, 6th Floor, Plot No. C-19, E-Block,
Bandra Kurla Complex, Bandra (East) Mumbai - 400 051.
6. Gujarat Urja Vikas Nigam Limited,
Sardar Patel Vidyut Bhawan,
Race Course Road, Vadodara - 390 007.
7. Gujarat Energy Transmission Corporation Limited,
Sardar Patel Vidyut Bhawan,
Race Course Road, Vadodara - 390 007.
8. Electricity Department,
Government of Goa, Vidyut Bhawan, Panaji,
Near Mandvi Hotel, Goa - 403 001.
9. Electricity Department,
Administration of Daman and Diu,
Daman - 396 210.
10. Electricity Department,
Administration of Dadra Nagar Haveli
U.T., Silvassa - 396 230.
11. Chhattisgarh State Electricity Board,
P.O.Sunder Nagar, Dangania, Raipur,
Chhattisgarh - 492 013.
12. Chhattisgarh State Power Transmission Company Limited,
Office of The Executive Director (C&P),
State Load Despacth Building,
Dangania, Raipur - 492 013.
13. Chhattisgarh State Power Distribution Company Limited,
P.O.Sunder Nagar, Dangania, Raipur,
Chhattisgarh - 492 013.

.....Respondent(s)

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

For Respondents: Shri Anindya Khare, MPPMCL



ORDER

The instant petition has been filed by Power Grid Corporation of India Limited, a deemed transmission licensee, for revision of transmission tariff of 2001-04, 2004-09 and 2009-14 tariff periods, truing up of transmission tariff of 2014-19 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and for determination of tariff for the period from 1.4.2019 to 31.3.2024 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) in respect of 400 kV D/C Kolhapur-Mapusa Transmission Line (Ckt.-I and Ckt.-II) in Western Region (hereinafter referred to as “the transmission asset”).

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

“1) Approve the revised Transmission Tariff for 2001-04 block, 2004-09 block and 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 transmission customers /Dlc as the case may be, as and when 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 with out 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 beneficiaries 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 beneficiaries.

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

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

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

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

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

Backdrop of the case

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

(a) The Investment Approval (I.A.) for the transmission asset was accorded by the Ministry of Power vide letter dated 3.7.2000 at an estimated cost of ₹18194.00 lakh (4th quarter 1999, price level), including IDC of ₹1554.00 lakh.

(b) The scope of the work as per I.A. is as follows:

(i) 400 kV Kolahapur-Mapusa transmission line

(ii) 400 kV Mapusa Sub-station



(c) The complete scope of the work as per I.A. is covered in the instant petition.

(d) As per I.A., the transmission asset was to be commissioned within a period of 36 months from the date of I.A. i.e. by July 2003. Ckt-I of the transmission asset was put under commercial operation on 1.1.2003 and Ckt-II on 1.12.2002. Thus, the transmission asset has been commissioned without any delay.

(e) Transmission tariff in respect of the transmission asset for 2001-04 period was approved by the Commission vide order dated 23.3.2005 in Petition No. 120/2002 and it was revised vide order dated 9.5.2006 in Petition No. 61/2005.

(f) The transmission tariff for 2004-09 period was approved vide order dated 9.5.2006 in Petition No. 61/2005 and it was revised vide order dated 29.4.2008 in Petition No. 61/2005.

(g) The transmission tariff for 2009-14 period was allowed vide order dated 27.8.2010 in Petition No. 78/2010. The transmission tariff for 2009-14 period was trued up and tariff for the period from 1.4.2014 to 31.3.2019 was determined vide order dated 7.10.2015 in Petition No. 161/TT/2014.

(h) The Petitioner has sought revision of transmission tariff approved for 2001-04 and 2004-09 tariff periods on account of change in Interest on Loan ("IoL") and Interest on Working Capital ("IWC") to the extent of revision in IoL and in Maintenance Spares in terms of the judgments of the Appellate Tribunal for Electricity ("the APTEL") dated 22.1.2007 in Appeal No. 81 of 2005 and batch matters and 13.6.2007 in Appeal No. 139 of 2006 and batch cases. The Petitioner has also sought consequential revision of tariff allowed for 2009-14 tariff period, truing up of tariff of 2014-19 tariff period and determination of tariff for the 2019-24 tariff period in respect of the transmission asset.



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

Sl. No.	Issue	APTEL's decisions/ directions
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 IoL.	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.	The Commission's view upheld.
3(b)	O&M Expenses: Non-inclusion of incentives and ex-gratia payment to employees.	The Commission's view upheld.
4	Cost of spares for calculation of working capital.	The Commission's view upheld.

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

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



VI	Impact of de-capitalisation of the assets on cumulative repayment of Loan.	The cumulative repayment of the loan proportionate to the assets decapitalized required to be reduced. The Commission to act accordingly.
VII	Non-consideration of normative transit loss for coal import.	The Commission to consider afresh the transit losses for coal imported from coal mines other than the dedicated ones.
VIII	Foreign Exchange rate variation (FERV).	FERV has been kept as pass through to ensure that any liability or gain, if any, arising on account of any variation in foreign exchange rates is passed on to the beneficiary as held in order dated 4.10.2006 in Appeal No.135 to 140 of 2005. The Commission to act accordingly.
IX	Computation of interest on loan in Singrauli Station.	Net loan closing at the end of a year is reflected as net loan opening on the first day of the next year. 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 the APTEL's judgments dated 22.1.2007 Appeal No. 81 of 2005 and batch matters and 13.6.2007 in Appeal No. 139 of 2007 and batch matters, the Petitioner had sought revision of tariff of its transmission assets for 2001-04 and 2004-09 tariff periods in Petition No. 121/2007. The Commission after taking into consideration the pendency of Appeals before the Hon'ble Supreme Court adjourned the said petition *sine die* and directed that the same be revived after the disposal of Civil Appeals by the Hon'ble Supreme Court.

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



Commission on 8.1.2019. The Commission vide order dated 18.1.2019 in Petition No. 121/2007, directed the Petitioner to submit its claim separately for the assets at the time of filing of trueing up petition for 2014-19 tariff period.

(o) The instant petition was heard on 9.7.2021 and in view of APTEL's judgments dated 22.1.2007 and dated 13.6.2007 and the order of Hon'ble Supreme Court dated 10.4.2018, tariff is being revised. Period wise transmission tariff is being re-worked based on the Tariff Regulations applicable for the respective tariff periods and suitable assumptions have been made at certain places and applied, which are indicated.

4. The Respondents are transmission utilities, distribution licensees and power departments which are procuring transmission services from the Petitioner, mainly beneficiaries of the 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 objections have been received from the general public in response to the aforesaid notices published in the newspapers. Respondent No. 1, Madhya Pradesh Power Management Company Limited (MPPMCL) has filed its reply vide affidavit dated 22.2.2020 and has raised the issues of revision of transmission tariff of 2001-04, 2004-09 and 2009-14 periods and effective tax rate and grossing up of Return on Equity ("RoE"). The Petitioner vide affidavit dated 2.7.2021 has filed rejoinder to the reply of MPPMCL.

6. It has been placed before us that MPPMCL has been raising the same issues in other petitions as well despite clear findings of the Commission rejecting the contentions of MPPMCL. The contentions of MPPMCL have been rejected by the Commission in other petitions including Petition No. 215/TT/2020. As MPPMCL has



not challenged the findings, the same have attained finality. In view of this, the pleas raised by MPPMCL are rejected. Further, MPPMCL's submissions, Petitioner's clarifications thereto and the Commission's findings on the said issues have not been repeated herein for the sake of brevity.

Re: Interest on Loan ("IoL")

7. The APTEL while dealing with the issue of computation of IoL, in judgment dated 22.1.2007, observed that IoL for the period from 1.4.1998 to 31.3.2001 shall be computed only on normative loan repayment as per its judgment dated 14.11.2006 in Appeal Nos. 94 and 96 of 2005. The 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 order for the period 1.4.1998 to 31.3.2001. In view of the above, the interest allowed for the 2001-04 and 2004-09 tariff periods is revised on the basis of the normative debt repayment methodology.

Re: Additional Capital Expenditure ("ACE")

8. The APTEL vide judgment dated 13.6.2007 in Appeal No. 139/2006 and others held that additional capitalisation 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 the 2001-04 and 2004-09 periods are also required to be revised taking into consideration the ACE after the date of commercial operation.



Re: Depreciation

9. As regards depreciation, the APTEL in its judgement dated 13.6.2007 in Appeal No.139 of 2006 observed that depreciation is an expense and it cannot be deployed for deemed repayment of loan and accordingly directed the Commission to compute the outstanding loan afresh. In view of the above directions of APTEL, the outstanding loan allowed for the transmission asset for the 2001-04 and 2004-09 tariff periods is revised in the instant order.

10. The revision of transmission tariff allowed for 2001-04 and 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 the APTEL vide judgments dated 22.1.2007 in Appeal No. 81 of 2005 and batch matters and 13.6.2007 in Appeal No. 139 of 2006 and batch cases respectively, in case of the Petitioner, was kept pending 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 2001-04, 2004-09 and 2009-14 tariff periods. Therefore, we direct that the Petitioner will neither claim nor pay any carrying cost from or to the beneficiaries for the difference, if any, in the tariff allowed earlier and the tariff being allowed in the instant order. Further, the said difference in tariff shall be recovered/ paid over a period of six months from the date of issue of this order.

11. This order is issued considering the submissions made by the Petitioner in the petition vide affidavit dated 7.1.2020, MPPMCL's reply vide affidavit dated 22.2.2020 and the Petitioner's rejoinder to MPPMCL's reply filed vide affidavit dated 2.7.2021.



12. The hearing in this matter was held on 9.7.2021 through video conference and 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 FOR 2001-04, 2004-09 AND 2009-14 TARIFF PERIODS

2001-04 Tariff Period

13. The Commission vide order dated 23.3.2005 in Petition No. 120/2002 approved the following transmission charges for 2001-04 period in respect of Ckt-I and Ckt.-II of the transmission asset:

Ckt.-I

(₹ in lakh)

Particulars	2002-03 (Pro-rata for 3 months)	2003-04
Depreciation	29.06	116.25
Return on Equity	30.17	120.70
O&M Expenses	33.24	140.92
Advance against Depreciation	0.00	0.00
Interest on Loan	47.89	193.39
Interest on Working Capital	3.95	16.11
Total	144.31	587.37

Ckt.-II

(₹ in lakh)

Particulars	2002-03 (Pro-rata for 4 months)	2003-04
Depreciation	82.80	248.40
Return on Equity	115.15	345.46
O&M Expenses	40.36	128.36
Advance against Depreciation	0.00	0.00
Interest on Loan	140.06	420.83
Interest on Working Capital	9.55	29.00
Total	387.92	1172.05

14. The Petitioner has claimed the following revised transmission charges in respect of Ckt.I and Ckt.-II of the transmission asset for 2001-04 period in this petition:



Ckt.-I**(₹ in lakh)**

Particulars	2002-03 (Pro-rata for 3 months)	2003-04
Depreciation	29.06	116.25
Return on Equity	30.17	130.79
O&M Expenses	33.24	140.92
Advance against Depreciation	0.00	0.00
Interest on Loan	47.89	194.27
Interest on Working Capital	3.96	16.54
Total	144.32	598.76

Ckt.-II**(₹ in lakh)**

Particulars	2002-03 (Pro-rata for 4 months)	2003-04
Depreciation	82.80	248.40
Return on Equity	115.15	345.46
O&M Expenses	40.36	128.36
Advance against Depreciation	0.00	0.00
Interest on Loan	140.06	421.99
Interest on Working Capital	9.55	29.30
Total	387.92	1173.51

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

- a) Admitted capital cost of ₹3963.54 lakh and ₹8747.49 as on COD in respect of Ckt-I and Ckt-II respectively of the transmission asset;
- b) ACE of ₹ 333.50 lakh and FERV of ₹226.25 lakh incurred up to 31.3.2004 for Ckt.-I and ACE of ₹ 22.17 lakh and FERV of ₹502.73 lakh incurred up to 31.3.2004 for Ckt.-II of the transmission asset have been considered as on 1.4.2004 for the purpose of tariff calculations.
- c) Weighted Average Rate of Interest (WAROI) on actual loan adopted vide order dated 23.3.2005 in Petition No. 120/ 2002;
- d) Weighted Average Rate of Depreciation (WAROD), Rate of Interest (RoI) for Working Capital and O&M Expenses as per order dated 23.3.2005 in Petition No. 120/ 2002.



16. In view of the above, the revised transmission charges allowed in respect of Ckt.-I and Ckt.-II of the transmission asset for 2001-04 tariff period are as follows:

Ckt.-I (₹ in lakh)

Particulars	2002-03 (Pro-rata for 3 months)	2003-04
Depreciation	29.06	116.25
Return on Equity	30.17	120.70
O&M Expenses	33.24	140.92
Advance against Depreciation	0.00	0.00
Interest on Loan	47.89	193.06
Interest on Working Capital	3.96	16.33
Total	144.32	587.26

Ckt.-II (₹ in lakh)

Particulars	2002-03 (Pro-rata for 4 months)	2003-04
Depreciation	82.80	248.40
Return on Equity	115.15	345.46
O&M Expenses	40.36	128.36
Advance against Depreciation	0.00	0.00
Interest on Loan	140.05	420.11
Interest on Working Capital	9.55	29.01
Total	387.91	1171.34

17. The Annual Fixed Charges (AFC) allowed in respect of Ckt-I and Ckt-II of the transmission asset for 2001-04 tariff period vide order dated 23.3.2005 in Petition No. 120/2002, the revised AFC claimed in the instant petition and AFC allowed in the instant order are as follows:

(₹ in lakh)

Ckt-I	2002-03 (Pro-rata for 3 months)	2003-04
AFC approved vide order dated 23.3.2005 in Petition No. 120/ 2002.	144.31	587.37
AFC claimed by the Petitioner in the instant petition.	144.32	598.76
AFC allowed in the instant order.	144.32	587.26

*In addition to above, Return on Equity of ₹10.09 lakh and Interest on Loan of ₹0.88 lakh has been allowed in 2003-04 period as per order dated 9.5.2006 in Petition No. 61/ 2005 on account of ACE during FY 2002-03 and FY 2003-04.



(₹ in lakh)

Ckt-II	2002-03 (Pro-rata for 4 months)	2003-04
AFC approved vide order dated 23.3.2005 in Petition No. 120/ 2002.	387.92	1172.05
AFC claimed by the Petitioner in the instant petition.	387.92	1173.51
AFC allowed in the instant order.	387.91	1171.34

**In addition to above, Interest on Loan of ₹ 1.17 lakh has been allowed in 2003-04 as per order dated 9.5.2006 in Petition No. 61/ 2005 on account of ACE during FY 2003-04.*

2004-09 Tariff Period

18. The Commission vide orders dated 9.5.2006 and 29.4.2008 in Petition No. 61/2005 approved the following transmission charges for 2004-09 period in respect of Ckt-I and Ckt-II of the transmission asset:

Ckt-I (₹ in lakh)

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	116.36	116.36	116.36	116.36	116.36
Return on Equity	143.55	143.55	143.55	143.55	143.55
O&M Expenses	230.89	240.15	249.84	259.66	270.20
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Loan	176.94	168.66	160.64	152.87	144.94
Interest on Working Capital	18.06	18.42	18.82	19.24	19.69
Total	685.80	687.14	689.21	691.68	694.74

Ckt.-II (₹ in lakh)

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	234.74	234.74	234.74	234.74	234.74
Return on Equity	302.28	302.28	302.28	302.28	302.28
O&M Expenses	202.77	210.9	219.42	228.03	237.30
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Loan	354.82	338.12	321.95	306.29	290.35
Interest on Working Capital	30.65	31.16	31.73	32.35	33.02
Total	1125.25	1117.20	1110.11	1103.68	1097.68

19. The Petitioner has claimed the following revised transmission charges in respect of Ckt.-I and Ckt.-II of the transmission asset for 2004-09 period in this petition:



Ckt-I**(₹ in lakh)**

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	116.36	116.36	116.36	116.36	116.36
Return on Equity	143.55	143.55	143.55	143.55	143.55
O&M Expenses	230.89	240.15	249.84	259.66	270.20
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Loan	179.35	175.84	170.10	161.99	153.41
Interest on Working Capital	18.67	19.15	19.63	20.08	20.56
Total	688.82	695.05	699.48	701.64	704.08

Ckt.-II**(₹ in lakh)**

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	234.74	234.74	234.74	234.74	234.74
Return on Equity	302.28	302.28	302.28	302.28	302.28
O&M Expenses	202.77	210.9	219.42	228.03	237.30
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Loan	359.66	352.65	341.15	324.90	307.73
Interest on Working Capital	31.15	31.85	32.53	33.16	33.84
Total	1130.60	1132.42	1130.12	1123.12	1115.89

20. The tariff is allowed in respect of the transmission asset on the basis of the following:

- a) Admitted capital cost of ₹4070.59 lakh and ₹8266.93 as on COD in Kolhapur Mapusa Ckt-I and Kolhapur Mapusa Ckt-II respectively;
- b) Nil ACE has been considered during the tariff period 2004-2009 in respect of Ckt.-I and Ckt.-II of the transmission asset;
- c) WAROI on actual loan adopted from order dated 9.5.2006 in Petition No. 61/ 2005; and
- d) WAROD, Rol for Working Capital and O&M Expenses as per order dated 9.5.2006 in Petition No. 61/2005.

21. In view of the above, the revised transmission charges allowed in respect of Ckt.-I and Ckt.-II of the transmission asset for 2004-09 tariff period are as follows:

Ckt.-I**(₹ in lakh)**

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	116.36	116.36	116.36	116.36	116.36



Return on Equity	143.55	143.55	143.55	143.55	143.55
O&M Expenses	230.89	240.15	249.84	259.66	270.20
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Loan	179.35	175.84	170.11	161.99	153.41
Interest on Working Capital	18.47	18.94	19.40	19.84	20.31
Total	688.63	694.85	699.26	701.41	703.83

Ckt.-II

(₹ in lakh)

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	234.74	234.74	234.74	234.74	234.74
Return on Equity	302.28	302.28	302.28	302.28	302.28
O&M Expenses	202.77	210.9	219.42	228.03	237.30
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Loan	359.66	352.65	341.16	324.91	307.73
Interest on Working Capital	30.76	31.44	32.09	32.70	33.35
Total	1130.21	1132.01	1129.69	1122.66	1115.40

22. AFC allowed for 2004-09 tariff period vide orders dated 9.5.2006 and 29.4.2008 in Petition No. 61/2005, the revised AFC claimed in the instant petition and AFC allowed in respect of Ckt.-I and Ckt.-II of the transmission asset in the instant order are as follows:

Ckt.-I

(₹ in lakh)

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
AFC approved vide orders dated 9.5.2006 and 29.4.2008 in Petition No. 61/2005.	685.80	687.14	689.21	691.68	694.74
AFC claimed by the Petitioner in the instant petition.	688.82	695.05	699.48	701.64	704.08
AFC allowed in the instant order.	688.63	694.85	699.26	701.40	703.83

Ckt.-II

(₹ in lakh)

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
AFC approved vide orders dated 9.5.2006 and 29.4.2008 in Petition No. 61/2005.	1125.25	1117.2	1110.11	1103.68	1097.68
AFC claimed by the Petitioner in the instant petition.	1130.60	1132.42	1130.12	1123.12	1115.89
AFC allowed in the instant order	1130.21	1132.01	1129.69	1122.66	1115.40

2009-14 Tariff Period

23. The Petitioner in Petition No. 78/2010 combined the elements Ckt-I and Ckt.-II of the transmission asset and claimed combined tariff in respect of the transmission



asset. Accordingly, the Commission vide order dated 27.8.2010 in Petition No. 78/2010 approved the transmission tariff in respect of the transmission asset for 2009-14 period and subsequently vide order dated 7.10.2015 in Petition No. 161/TT/2014 trued up the tariff for 2009-14 period with respect to the transmission asset and the same is as follows:

Particulars	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	627.37	627.37	627.37	627.37	627.37
Return on Equity	594.67	616.45	617.05	617.05	624.47
O&M Expenses	680.93	719.93	761.14	804.63	850.59
Interest on Loan	346.67	270.68	242.9	225.18	200.13
Interest on Working Capital	66.76	67.58	69.07	70.88	72.81
Total	2316.38	2302	2317.53	2345.11	2375.36

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

Particulars	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	627.37	627.37	627.37	627.37	627.37
Return on Equity	594.67	616.45	617.05	617.05	624.47
O&M Expenses	680.93	719.93	761.14	804.63	850.59
Interest on Loan	367.88	288.87	260.99	243.99	219.17
Interest on Working Capital	67.20	67.96	69.45	71.27	73.21
Total	2338.05	2320.57	2336.00	2364.32	2394.81

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

- a) Admitted capital cost of ₹12337.72 lakh in respect of the transmission asset as on 1.4.2009;
- b) Nil ACE has been considered during 2009-2014 tariff period in respect of the transmission asset.
- c) WAROI on actual loan derived/adopted from order dated 7.10.2015 in Petition No. 161/TT/2014, and



d) WAROD as per order dated 7.10.2015 in Petition No. 161/TT/2014.

26. In view of the above, the revised transmission charges in respect of the transmission asset for 2009-14 period are as follows:

Particulars	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	627.37	627.37	627.37	627.37	627.37
Interest on Loan	367.89	288.87	261.00	244.00	219.17
Return on equity	594.67	616.45	617.05	617.05	624.47
Interest on Working Capital	67.20	67.96	69.45	71.27	73.21
O&M Expenses	680.93	719.93	761.14	804.63	850.59
Total	2338.05	2320.58	2336.01	2364.32	2394.81

27. AFC allowed in respect of the transmission asset for 2009-14 tariff period vide order dated 7.10.2015 in Petition No. 161/TT/2014, the revised AFC claimed in the instant petition and AFC allowed in the instant order are as follows:

Particulars	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
AFC approved vide order dated 7.10.2015 in Petition No. 161/TT/2014.	2316.38	2302	2317.53	2345.11	2375.36
AFC claimed by the Petitioner in the instant petition.	2338.05	2320.57	2336.00	2364.32	2394.81
AFC allowed in the instant order.	2338.05	2320.58	2336.01	2364.32	2394.81

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

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

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	627.37	266.83	266.83	266.83	266.84
Interest on Loan	200.47	179.67	186.35	188.72	189.45
Return on equity	624.95	627.81	627.50	627.50	629.18
Interest on Working Capital	76.61	69.33	70.96	72.54	74.18
O&M Expenses	781.41	807.41	834.20	861.87	890.47
Total	2310.81	1951.05	1985.84	2017.46	2050.12



29. The details of the trued-up IWC claimed by the Petitioner in respect of the transmission asset are as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	65.12	67.28	69.52	71.82	74.21
Maintenance Spares	117.21	121.11	125.13	129.28	133.57
Receivables	385.13	325.18	330.97	336.24	341.69
Total	567.46	513.57	525.62	537.34	549.47
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	76.61	69.33	70.96	72.54	74.18

Capital Cost as on 1.4.2014

30. The capital cost in respect of the transmission asset has been calculated in accordance with Regulations 9(3) and 9(6) of the 2014 Tariff Regulations. The Commission vide order dated 7.10.2015 in Petition No. 161/TT/2014 approved the transmission tariff in respect of the transmission asset for 2014-19 period based on admitted capital cost of ₹12337.72 lakh as on 31.3.2014. Therefore, the admitted capital cost of ₹12337.72 lakh as on 31.3.2014 has been considered for working out the trued up tariff for 2014-19 period.

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

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

32. The capital cost considered for truing up of tariff in respect of transmission asset for 2014-19 period is as follows:

(₹ in lakh)		
Capital Cost as on 1.4.2014	ACE during 2014-19 Period	Capital Cost as on 31.3.2019
12337.72	0.00	12337.72



Debt-Equity Ratio

33. As per Regulation 19(3) of the 2014 Tariff Regulations, debt-equity ratio allowed by the Commission for determination of tariff for the period ending on 31.3.2014 shall be considered. Accordingly, the admitted debt-equity ratio of 74.19:25.81 for the period ending on 31.3.2014 has been considered as opening debt-equity ratio as on 1.4.2014 for the purpose of truing up of tariff of 2014-19 tariff period in respect of the transmission asset. The details of debt-equity ratio allowed in respect of the transmission asset as on 1.4.2014 and 31.3.2019 are as follows:

Particulars	Capital cost as on 1.4.2014 (₹ in lakh)	(in %)	Total cost as on 31.3.2019 (₹ in lakh)	(in %)
Debt	9153.26	74.19	9153.26	74.19
Equity	3184.46	25.81	3184.46	25.81
Total	12337.72	100.00	12337.72	100.00

Depreciation

34. Depreciation has been worked out as per the methodology provided in Regulation 27 of the 2014 Tariff Regulations. The Gross Block during 2014-19 tariff period has been depreciated at WAROD. As the transmission asset has completed 12 years of life as on 31.3.2015, the remaining depreciable value of ₹5069.78 lakh has been spread across the balance useful life of 19 years in accordance with Regulation 27(5) of 2014 Tariff Regulations. WAROD as given in Annexure-I to this order has been worked out after taking into account the depreciation rates of transmission assets as prescribed in the 2014 Tariff Regulations. Accordingly, depreciation allowed in respect of the transmission asset for 2014-19 tariff period is as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	12337.72	12337.72	12337.72	12337.72	12337.72
Additional Capitalisation	0.00	0.00	0.00	0.00	0.00



Closing Gross Block	12337.72	12337.72	12337.72	12337.72	12337.72
Average Gross Block	12337.72	12337.72	12337.72	12337.72	12337.72
Freehold Land	42.16	42.16	42.16	42.16	42.16
WAROD (in %)	5.08	2.16	2.16	2.16	2.16
Balance useful life (at the beginning of the year) (Year)	20	19	18	17	16
Aggregate Depreciable Value	11066.00	11066.00	11066.00	11066.00	11066.00
Depreciation during the year	627.37	266.83	266.83	266.83	266.83
Cumulative Aggregate Depreciation	5996.22	6263.05	6529.88	6796.72	7063.55
Remaining Aggregate Depreciable Value	5069.78	4802.95	4536.12	4269.29	4002.46

35. Accordingly, depreciation approved vide order dated 7.10.2015 in Petition No. 161/TT/2014, as claimed by the Petitioner in the instant petition and trued up depreciation allowed in respect of the transmission asset is as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 7.10.2015 in Petition No. 161/TT/2014.	627.37	267.49	267.49	267.49	267.49
Claimed by the Petitioner in the instant petition.	627.37	266.83	266.83	266.83	266.84
Allowed after true-up in this order.	627.37	266.83	266.83	266.83	266.83

Interest on Loan ("IoL")

36. The Petitioner has claimed IoL based on actual interest rates for each year during 2014-19 period. 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. IoL in respect of the transmission asset has been worked out as follows:

- (i) Gross amount of loan, repayment of instalments and weighted average rate of interest on actual average loan have been considered as per the petition.
- (ii) The repayment for the tariff period 2014-19 has been considered to be equal to the depreciation allowed for that period.



37. The details of trued-up IoL allowed in respect of the transmission asset is as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	9153.26	9153.26	9153.26	9153.26	9153.26
Cumulative Repayments up to Previous Year	4512.98	5140.35	5407.18	5674.01	5940.84
Net Loan-Opening	4640.28	4012.91	3746.08	3479.25	3212.42
Additions due to ACE	0.00	0.00	0.00	0.00	0.00
Repayment during the year	627.37	266.83	266.83	266.83	266.83
Net Loan-Closing	4012.91	3746.08	3479.25	3212.42	2945.59
Average Loan	4326.60	3879.50	3612.67	3345.84	3079.01
Weighted Average Rate of Interest on Loan (in %)	4.634	4.631	5.158	5.640	6.153
Interest on Loan	200.47	179.67	186.35	188.72	189.46

38. Accordingly, IoL approved vide order dated 7.10.2015 in Petition No. 161/TT/2014, as claimed by the Petitioner in the instant petition and allowed after truing up in the instant order in respect of the transmission asset is as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 7.10.2015 in Petition No. 161/TT/2014.	173.27	149.39	135.41	123.90	112.53
Claimed by the Petitioner in the instant petition.	200.47	179.67	186.35	188.72	189.45
Allowed after true-up in this order.	200.47	179.67	186.35	188.72	189.46

Return on Equity (“RoE”)

39. The Petitioner has claimed RoE in respect of the transmission asset in terms of Regulation 24 and Regulation 25 of the 2014 Tariff Regulations. The Petitioner has submitted that it is liable to pay income tax at 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 (in %) [(Base Rate)/(1-t)]
2014-15	21.018	19.624
2015-16	21.382	19.716



2016-17	21.338	19.705
2017-18	21.337	19.704
2018-19	21.549	19.758

40. 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 are 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

41. MAT rates as allowed vide order dated 27.4.2020 in Petition No. 274/TT/2019 are considered for the purpose of grossing up of rate of RoE for truing up of the tariff of 2014-19 period in terms of the provisions of the 2014 Tariff Regulations which are as follows:

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

42. The details of trued-up RoE allowed in respect of the transmission asset is as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	3184.46	3184.46	3184.46	3184.46	3184.46
Addition due to ACE	0.00	0.00	0.00	0.00	0.00
Closing Equity	3184.46	3184.46	3184.46	3184.46	3184.46
Average Equity	3184.46	3184.46	3184.46	3184.46	3184.46
RoE (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
Tax Rate applicable (in %)	20.961	21.342	21.342	21.342	21.549
Applicable RoE Rate (in %)	19.610	19.705	19.705	19.705	19.758
Return on Equity for the year	624.47	627.50	627.50	627.50	629.19



43. Accordingly, RoE approved order dated 7.10.2015 in Petition No. 161/TT/2014, as claimed in the instant petition and trued up in the instant order in respect of the transmission asset is as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 7.10.2015 in Petition No. 161/TT/2014.	624.47	624.47	624.47	624.47	624.47
Claimed by the Petitioner in the instant petition.	624.95	627.81	627.50	627.50	629.18
Allowed after true-up in this order.	624.47	627.50	627.50	627.50	629.19

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

44. O&M Expenses as claimed by the Petitioner in respect of the transmission asset are within the norms specified under the 2014 Tariff Regulations. The allowable O&M Expenses in respect of the transmission asset are as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Transmission Line					
Twin Conductor Double Circuit Kolhapur- Mapusa Transmission line Ckt.- I and Ckt.- II (km).	150.00	150.00	150.00	150.00	150.00
Norms (₹ lakh/km)					
D/C Twin/Triple Conductor	0.71	0.73	0.76	0.78	0.81
O&M Expenses Transmission Line	106.05	109.65	113.25	117.00	120.90
Sub-station					
400 kV Mapusa: Kolhapur-I Bay	1	1	1	1	1
400 kV Mapusa: ICT-I Bay	1	1	1	1	1
220 kV Mapusa: ICT-I Bay	1	1	1	1	1
220 kV Mapusa: TIVIM-I Bay	1	1	1	1	1
220 kV Mapusa: PONDA-I Bay	1	1	1	1	1
220 kV Mapusa: PONDA-II Bay	1	1	1	1	1
400 kV Kolhapur: Mapusa-I	1	1	1	1	1
400 kV Mapusa: Kolhapur-2	1	1	1	1	1
400 kV Mapusa: ICT-II	1	1	1	1	1
220 kV Mapusa: ICT-II Bay	1	1	1	1	1
220 kV Mapusa: TIVIM-II Bay	1	1	1	1	1
400 kV Mapusa: Bus Reactor	1	1	1	1	1
400 kV Kolhapur: Mapusa-II	1	1	1	1	1
Norms (₹ lakh/Bay)					
400 kV AIS	60.30	62.30	64.37	66.51	68.71



220 kV AIS	42.21	43.61	45.06	46.55	48.10
O&M Expenses Sub-station	675.36	697.76	720.95	744.87	769.57
Total O&M Expenses (₹ in lakh)	781.41	807.41	834.20	861.87	890.47

45. Accordingly, O&M Expenses approved vide order dated 7.10.2015 in Petition No. 161/TT/2014, as claimed in the instant petition and trued up in the instant order in respect of the transmission asset are as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 7.10.2015 in Petition No. 161/TT/2014	781.41	807.41	834.20	861.87	890.47
Claimed by the Petitioner in the instant petition	781.41	807.41	834.20	861.87	890.47
Allowed after true up in this order	781.41	807.41	834.20	861.87	890.47

Interest on Working Capital (“IWC”)

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

47. IWC has been worked out as per the methodology provided in Regulation 28 of the 2014 Tariff Regulations and the same is allowed in respect of the transmission asset as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Working Capital for O&M Expenses (O&M Expenses for one month).	65.12	67.28	69.52	71.82	74.21
Working Capital for Maintenance Spares (15% of O&M Expenses).	117.21	121.11	125.13	129.28	133.57
Working Capital for Receivables (Equivalent to two months of annual fixed cost / annual transmission charges).	385.05	325.12	330.97	336.24	341.69
Total	567.38	513.52	525.62	537.35	549.46
Rate of Interest on working capital (in %)	13.50	13.50	13.50	13.50	13.50
Interest of Working Capital	76.60	69.33	70.96	72.54	74.18



48. Accordingly, IWC approved vide order dated 7.10.2015 in Petition No. 161/TT/2014, as claimed in the instant petition and trued up IWC in the instant order in respect of the transmission asset is as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 7.10.2015 in Petition No. 161/TT/2014	75.97	68.57	69.73	71.00	72.31
Claimed by the Petitioner in the instant petition	76.61	69.33	70.96	72.54	74.18
Allowed after true-up in this order	76.60	69.33	70.96	72.54	74.18

Approved Annual Fixed Charges for 2014-19 Tariff Period

49. The trued-up AFC allowed in respect of the transmission asset for 2014-19 tariff period are as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	627.37	266.83	266.83	266.83	266.83
Interest on Loan	200.47	179.67	186.35	188.72	189.46
Return on Equity	624.47	627.50	627.50	627.50	629.19
O&M Expenses	781.41	807.41	834.20	861.87	890.47
Interest on Working Capital	76.60	69.32	70.96	72.54	74.18
Total	2310.32	1950.74	1985.84	2017.46	2050.12

50. Accordingly, the details of the Annual Transmission Charges as approved vide order dated 7.10.2015 in Petition No. 161/TT/2014, as claimed by the Petitioner in the instant petition and as approved after truing up in the instant order are as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed earlier vide order dated 7.10.2015 in Petition No. 161/TT/2014.	2282.49	1917.33	1931.30	1948.73	1967.27
Claimed by the Petitioner in the instant petition.	2310.81	1951.05	1985.84	2017.46	2050.12
Allowed after true-up in this order.	2310.32	1950.74	1985.84	2017.46	2050.12



DETERMINATION OF ANNUAL FIXED CHARGES FOR 2019-24 TARIFF PERIOD

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

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	266.82	266.84	266.82	266.84	266.82
Interest on Loan	172.84	156.43	140.03	123.63	107.23
Return on Equity	598.10	598.10	598.10	598.10	598.10
Interest on Working Capital	47.02	47.96	48.85	49.79	50.66
O&M Expenses	720.89	746.39	772.48	799.76	827.09
Total	1805.67	1815.72	1826.28	1838.12	1849.90

52. The Petitioner has claimed the following IWC for 2019-24 period in respect of the transmission asset:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	60.07	62.20	64.37	66.65	68.92
Maintenance Spares	108.13	111.96	115.87	119.96	124.06
Receivables	222.01	223.86	225.16	226.62	227.45
Total	390.21	398.02	405.40	413.23	420.43
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	47.02	47.96	48.85	49.79	50.66

Capital Cost

53. Regulation 19 of the 2019 Tariff Regulations provides as follows:

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

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

(a) The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;

(b) Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;

(c) Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period;

(d) Interest during construction and incidental expenditure during construction as computed in accordance with these regulations;



- (e) Capitalised initial spares subject to the ceiling rates in accordance with these regulations;
- (f) Expenditure on account of additional capitalization and de-capitalisation determined in accordance with these regulations;
- (g) Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 7 of these regulations;
- (h) Adjustment of revenue earned by the transmission licensee by using the asset before the date of commercial operation;
- (i) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
- (j) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal up to the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;
- (k) Capital expenditure on account of biomass handling equipment and facilities, for co-firing;
- (l) Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;
- (m) Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project;
- (n) Expenditure on account of change in law and force majeure events; and
- (o) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.

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

- (a) Capital cost admitted by the Commission prior to 1.4.2019 duly trued up by excluding liability, if any, as on 1.4.2019;
- (b) Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;
- (c) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
- (d) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
- (e) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal up to the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and
- (f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.”

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

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

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



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

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

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

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

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

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

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

54. The Petitioner has claimed capital cost of ₹12337.72 lakh in respect of the transmission asset as on 31.3.2019, which is same as worked out by the Commission in preceding paragraphs. Accordingly, capital cost of ₹12337.72 lakh in respect of the transmission asset has been considered as on 1.4.2019 for determination of tariff in accordance with Regulation 19 of the 2019 Tariff Regulations.

55. The Petitioner has not claimed any ACE for 2019-24 tariff period in respect of the transmission asset.

Debt-Equity Ratio

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

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

Provided that:

- i. where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff:*



- ii. the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:
- iii. any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt: equity ratio.

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

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

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

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

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

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

57. The details of debt-equity ratio considered in respect of the transmission asset for the purpose of tariff of 2019-24 period are as follows:

Particulars	Capital cost as on 1.4.2019 (₹ in lakh)	(in %)	Total cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	9153.26	74.19	9153.26	74.19
Equity	3184.46	25.81	3184.46	25.81
Total	12337.72	100.00	12337.72	100.00

Depreciation

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



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

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

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

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

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

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

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

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

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

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

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



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

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

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

59. The transmission asset has already completed more than 12 years before 1.4.2019. Accordingly, depreciation has been calculated based on the remaining depreciable value (up to 90% of existing gross block of assets) to be recovered over the balance useful life. Depreciation has been worked out considering ACE as on 31.3.2019 and accumulated depreciation up to 31.3.2019. Depreciation as worked out and allowed in respect of the transmission asset is as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	12337.72	12337.72	12337.72	12337.72	12337.72
Addition during 2019-24 due to projected ACE	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	12337.72	12337.72	12337.72	12337.72	12337.72
Average Gross Block	12337.72	12337.72	12337.72	12337.72	12337.72
Freehold Land	42.16	42.16	42.16	42.16	42.16
Balance useful life at the beginning of the year (Year)	15	14	13	12	11
Depreciable Value	11066.00	11066.00	11066.00	11066.00	11066.00
Rate of Depreciation (in %)	2.16	2.16	2.16	2.16	2.16
Depreciation during the year	266.83	266.83	266.83	266.83	266.83
Cumulative Aggregate Depreciation	7330.38	7597.21	7864.04	8130.87	8397.70
Remaining Aggregate Depreciable Value	3735.63	3468.80	3201.97	2935.14	2668.31



Interest on Loan (“IoL”)

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

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

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

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

(4) *Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of the year. (5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized:*

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

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

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

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

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

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

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



61. The weighted average rate of IoL has been considered on the basis of rate prevailing as on 1.4.2019. Accordingly, 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. IoL allowed in respect of the transmission asset is as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	9153.26	9153.26	9153.26	9153.26	9153.26
Cumulative Repayments up to Previous Year.	6207.67	6474.50	6741.33	7008.16	7274.99
Net Loan-Opening	2945.59	2678.76	2411.93	2145.10	1878.27
Additions	0.00	0.00	0.00	0.00	0.00
Repayment during the year	266.83	266.83	266.83	266.83	266.83
Net Loan-Closing	2678.76	2411.93	2145.10	1878.27	1611.44
Average Loan	2812.17	2545.34	2278.51	2011.68	1744.85
Weighted Average Rate of Interest on Loan (in %)	6.1463	6.1459	6.1459	6.1459	6.1459
Interest on Loan	172.85	156.43	140.03	123.64	107.24

Return on Equity (“RoE”)

62. Regulation 30 and Regulation 31 of the 2019 Tariff Regulations specify as follows:

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

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

Provided that return on equity in respect of additional capitalization after cut-off date beyond the original scope excluding additional capitalization due to Change in Law, shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission system;

Provided further that:

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



load dispatch centre or protection system based on the report submitted by the respective RLDC;

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

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

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

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

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

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

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

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.”

63. The Petitioner has submitted that MAT rate is applicable to it. We have considered the submissions of the Petitioner. Accordingly, MAT rate applicable in 2019-20 has been considered for the purpose of RoE which shall be trued up with actual tax rate in accordance with Regulation 31(3) of the 2019 Tariff Regulations. RoE allowed in respect of the transmission asset is as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	3184.46	3184.46	3184.46	3184.46	3184.46
Additions due to ACE	0.00	0.00	0.00	0.00	0.00
Closing Equity	3184.46	3184.46	3184.46	3184.46	3184.46
Average Equity	3184.46	3184.46	3184.46	3184.46	3184.46
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (in %)	18.782	18.782	18.782	18.782	18.782
Return on Equity	598.11	598.11	598.11	598.11	598.11

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

64. The norms specified under Regulation 35(3)(a) of the 2019 Tariff Regulations are 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
<i>Norms for sub-station Bays (₹ Lakh per bay)</i>					
765 kV	45.01	46.60	48.23	49.93	51.68
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84
132 kV and below	16.08	16.64	17.23	17.83	18.46
<i>Norms for Transformers (₹ Lakh per MVA)</i>					
765 kV	0.491	0.508	0.526	0.545	0.564
400 kV	0.358	0.371	0.384	0.398	0.411
220 kV	0.245	0.254	0.263	0.272	0.282
132 kV and below	0.245	0.254	0.263	0.272	0.282
<i>Norms for AC and HVDC lines (₹ Lakh per km)</i>					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-conductors)	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773
<i>Norms for HVDC stations</i>					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	834	864	894	925	958
Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)	1,666	1,725	1,785	1,848	1,913
500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)	2,252	2,331	2,413	2,498	2,586
±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)	2,468	2,555	2,645	2,738	2,834
±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)	1,696	1,756	1,817	1,881	1,947
±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)	2,563	2,653	2,746	2,842	2,942

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

Provided further that:

- i. the operation and maintenance expenses for new HVDC bi-pole schemes



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

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

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

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

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

65. The Petitioner has claimed O&M Expenses for 2019-24 tariff period as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Transmission Line					
400 kV Kolhapur- Mapusa Transmission line Ckt I and Ckt II Twin Conductor Double Circuit (km)	150.00	150.00	150.00	150.00	150.00
Norms (₹ lakh/km)					
D/C Twin/Triple Conductor	0.88	0.91	0.94	0.98	1.01
O&M Expenses Transmission Line	132.15	136.80	141.60	146.55	151.65
Sub-station					
400 kV Mapusa: Kolhapur-I Bay	1	1	1	1	1
400 kV Mapusa: ICT-I Bay	1	1	1	1	1



220 kV Mapusa: ICT-I Bay	1	1	1	1	1
220 kV Mapusa: TIVIM-I Bay	1	1	1	1	1
220 kV Mapusa: PONDA-I Bay	1	1	1	1	1
220 kV Mapusa: PONDA-II Bay	1	1	1	1	1
400 kV Kolhapur: Mapusa-I	1	1	1	1	1
400 kV Mapusa:Kolhapur-2	1	1	1	1	1
400 kV Mapusa: ICT-II	1	1	1	1	1
220 kV Mapusa: ICT-II Bay	1	1	1	1	1
220 kV Mapusa: TIVIM-II Bay	1	1	1	1	1
400 kV Mapusa: Bus Reactor	1	1	1	1	1
400 kV Kolhapur: Mapusa-II	1	1	1	1	1
Norms (₹ lakh/Bay)					
400 kV AIS	32.15	33.28	34.45	35.66	36.91
220 kV AIS	22.51	23.30	24.12	24.96	25.84
O&M Expenses Sub-station	360.11	372.76	385.87	399.38	413.41
Transformers					
400 kV Mapusa: ICT-I at Mapusa	315	315	315	315	315
400 kV Mapusa: ICT-II at Mapusa	315	315	315	315	315
Norms (₹ lakh/ MVA)					
400 kV	0.36	0.37	0.38	0.40	0.41
O&M Expenses Transformers	225.54	233.73	241.92	250.74	258.93
Communication System (PLCC)					
Project Cost (₹ in lakh)	154.63	154.63	154.63	154.63	154.63
Norm (in %)	2	2	2	2	2
O&M Expenses PLCC	3.09	3.09	3.09	3.09	3.09
Total O&M Expenses (₹ in lakh)	720.89	746.39	772.48	799.76	827.09

66. 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.



67. O&M Expenses allowed in respect of the transmission asset covered in the instant petition are as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Transmission Line					
400 kV D/C Kolhapur- Mapusa Transmission line Ckt I and Ckt II (km)	150.00	150.00	150.00	150.00	150.00
Norms (₹ lakh/km)					
D/C Twin/Triple Conductor	0.88	0.91	0.94	0.98	1.01
O&M Expenses Transmission Line	132.15	136.80	141.60	146.55	151.65
Sub-station					
400 kV Mapusa: Kolhapur-I Bay	1	1	1	1	1
400 kV Mapusa: ICT-I Bay	1	1	1	1	1
220 kV Mapusa: ICT-I Bay	1	1	1	1	1
220 kV Mapusa: TIVIM-I Bay	1	1	1	1	1
220 kV Mapusa: PONDA-I Bay	1	1	1	1	1
220 kV Mapusa: PONDA-II Bay	1	1	1	1	1
400 kV Kolhapur: Mapusa-I	1	1	1	1	1
400 kV Mapusa: Kolhapur-2	1	1	1	1	1
400 kV Mapusa: ICT-II	1	1	1	1	1
220 kV Mapusa: ICT-II Bay	1	1	1	1	1
220 kV Mapusa: TIVIM-II Bay	1	1	1	1	1
400 kV Mapusa: Bus Reactor	1	1	1	1	1
400 kV Kolhapur: Mapusa-II	1	1	1	1	1
Norms (₹ lakh/Bay)					
400 kV AIS	32.15	33.28	34.45	35.66	36.91
220 kV AIS	22.51	23.30	24.12	24.96	25.84
O&M Expenses Sub-station	360.11	372.76	385.87	399.38	413.41
Transformers					
400 kV Mapusa: ICT-I at Mapusa	315	315	315	315	315
400 kV Mapusa: ICT-II at Mapusa	315	315	315	315	315
Norms (₹ lakh/ MVA)					
400 kV	0.36	0.37	0.38	0.40	0.41
O&M Expenses Transformers	225.54	233.73	241.92	250.74	258.93
Total O&M Expenses (₹ in lakh)	717.80	743.29	769.39	796.67	823.99

Interest on Working Capital (“IWC”)

68. Regulation 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;”

69. 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 interest on working capital as 12.05%. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The Rate of IWC considered is 12.05% (SBI 1 year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20, 11.25% (SBI 1 year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) for 2020-21 and 10.50% (SBI 1 year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points) for 2021-24. The components of the working capital and interest allowed thereon in respect of the transmission asset is as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Working Capital for O&M Expenses (O&M expenses for one month).	59.82	61.94	64.12	66.39	68.67



Working Capital for Maintenance Spares (15% of O&M Expenses).	107.67	111.49	115.41	119.50	123.60
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost / annual transmission charges).	221.61	223.06	223.98	225.42	226.24
Total	389.10	396.49	403.50	411.31	418.51
Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
Interest on working capital	46.89	44.61	42.37	43.19	43.94

Annual Fixed Charges for 2019-24 Tariff Period

70. The transmission charges allowed in respect of the transmission asset for 2019-24 tariff period are as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	266.83	266.83	266.83	266.83	266.83
Interest on Loan	172.85	156.43	140.03	123.64	107.24
Return on Equity	598.11	598.11	598.11	598.11	598.11
O&M Expenses	717.80	743.29	769.39	796.67	823.99
Interest on Working Capital	46.89	44.61	42.37	43.19	43.94
Total	1802.47	1809.27	1816.73	1828.43	1840.11

Filing Fee and Publication Expenses

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

Licence Fee & RLDC Fees and Charges

72. The Petitioner shall be entitled to reimbursement of licence fee in accordance with Regulation 70(4) of the 2019 Tariff Regulations for 2019-24 tariff period. The



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

Good and Service Tax

73. 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 Respondents 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.

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

Security Expenses

75. The Petitioner has submitted that security expenses in respect of 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.

76. We have considered the above submissions of Petitioner. The Petitioner has claimed consolidated security expenses for all the transmission assets owned by it on projected basis for 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19 in Petition No. 260/MP/2020. The said petition has already been disposed of by the Commission vide order dated 3.8.2021. Therefore, security expenses will be shared in terms of the order dated 3.8.2021 in Petition No. 260/MP/2020. Accordingly, the Petitioner's prayer in the instant petition for allowing it



to file a separate petition for claiming the overall security expenses and consequential IWC has become infructuous.

Capital Spares

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

Sharing of Transmission Charges

78. During the tariff periods 2001-04, 2004-09 and 2009-14 (up to 30.6.2011), the transmission charges for inter-State transmission systems were being shared in accordance with the Tariff Regulations for the respective tariff periods. With effect from 1.7.2011, sharing of transmission charges for inter-State transmission systems was governed by the 2010 Sharing Regulations and with effect from 1.11.2020 (after repeal of the 2010 Sharing Regulations), sharing of transmission charges is governed by the 2020 Sharing Regulations. Accordingly, the liabilities of DICs for arrears of transmission charges determined through this order shall be computed DIC-wise in accordance with the provisions of respective Tariff Regulations and Sharing Regulations and shall be recovered from the concerned DICs through Bills under Regulation 15(2) (b) of the 2020 Sharing Regulations. Billing, collection and disbursement of the transmission charges for subsequent period shall be recovered in terms of provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.

79. To summarise:

- a) The revised AFC allowed in respect of Ckt.-I and Ckt.-II of the transmission asset for 2001-04 tariff periods are as follows:



Ckt.-I**(₹ in lakh)**

Particulars	2002-03	2003-04
	Pro-rata for 3 months	
AFC	144.32	587.26

Ckt.-II**(₹ in lakh)**

Particulars	2002-03	2003-04
	Pro-rata for 4 months	
AFC	387.91	1171.34

b) The revised AFC allowed in respect of Ckt.-I and Ckt.-II of the transmission asset for 2004-09 tariff periods are as follows:

Ckt.-I**(₹ in lakh)**

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
AFC	688.63	694.85	699.26	701.41	703.83

Ckt.-II**(₹ in lakh)**

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
AFC	1130.21	1132.01	1129.69	1122.66	1115.40

c) The revised AFC allowed in respect of the transmission asset for 2009-14 tariff periods are as follows:

(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
AFC	2338.05	2320.58	2336.01	2364.32	2394.81

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

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
AFC	2310.32	1950.74	1985.84	2017.46	2050.12

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

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
AFC	1802.47	1809.27	1816.73	1828.43	1840.11

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



81. This order disposes of Petition No. 211/TT/2020 in terms of the above discussions and findings.

sd/-
(P. K. Singh)
Member

sd/-
(Arun Goyal)
Member

sd/-
(I.S. Jha)
Member



Annexure-I

	Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations (₹ in lakh)				
					2014-15	2015-16	2016-17	2017-18	2018-19
Asset	Land	42.16	42.16	0.00	0.00	Spreading			
	Building	1209.44	1209.44	3.34	40.40				
	Transmission Line	7134.53	7134.53	5.28	376.70				
	Sub Station	3796.96	3796.96	5.28	200.48				
	PLCC	154.63	154.63	6.33	9.79				
	TOTAL	12337.72	12337.72		627.37	266.83	266.83	266.83	266.83
Average Gross Block (₹ in lakh)					12337.72	12337.72	12337.72	12337.72	12337.72
Weighted Average Rate of Depreciation (in %)					5.08	2.16	2.16	2.16	2.16

