

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 217/TT/2020

Coram:

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

Date of order: 14.12.2021

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 2004-09 and 2009-14 tariff periods and truing up of transmission tariff of 2014-19 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of 2019-24 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2019 in respect of: (a) 40% fixed series compensation on Gooty-Neelmangla line-II at Gooty and (b) 40% fixed series compensation on Gooty-Neelmangla line-I at Gooty, Kadapa Nagarjunasagar Circuit-I and Circuit-II at Kadapa under "Fixed Series Compensation on 400 kV lines in Southern 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. Karnataka Power Transmission Corporation Limited,
Kaveri Bhavan,
Bangalore – 560 009.
2. Transmission Corporation of Andhra Pradesh Limited,
Vidyut Soudha, Hyderabad – 500 082.
3. Kerala State Electricity Board,
Vaidyuthi Bhavanam, Pattom,
Thiruvananthapuram – 695 004.
4. Tamil Nadu Generation and Distribution Corporation Limited,
(Formerly Tamil Nadu Electricity Board -TNEB),
NPKRR Maaligai, 800, Anna Salai,
Chennai – 600 002.



5. Electricity Department,
Government of Pondicherry,
Pondicherry – 605 001.
6. Eastern Power Distribution Company of Andhra Pradesh Limited,
APEPDCL, P&T Colony, Seethmmadhara,
Vishakhapatnam, Andhra Pradesh.
7. Southern Power Distribution Company of Andhra Pradesh Limited,
Srinivasasa Kalyana Mandapam Backside,
Tiruchanoor Road, Kesavayana Gunta,
Tirupati - 517 501.
8. Southern Power Distribution Company of Telangana Limited,
Corporate Office, Mint Compound,
Hyderabad – 500 063, Telangana.
9. Northern Power Distribution Company of Telangana Limited,
Opposite NIT Petrol Pump, Chaitanyapuri, Kazipet,
Warangal – 506 004, Telangana.
10. Bangalore Electricity Supply Company Limited,
Corporate Office, K.R.Circle,
Bangalore – 560 001, Karnataka.
11. Gulbarga Electricity Supply Company Limited,
Station Main Road,
Gulbarga, Karnataka.
12. Hubli Electricity Supply Company Limited,
Navanagar, PB Road,
Hubli, Karnataka.
13. MESCOM Corporate Office,
Paradigm Plaza, AB Shetty Circle,
Mangalore – 575 001, Karnataka.
14. Chamundeswari Electricity Supply Corporation Limited,
927, L J Avenue, Ground Floor, New Kantharaj Urs Road,
Saraswatipuram,
Mysore – 570 009, Karnataka.
15. Electricity Department,
Government of Goa,
Vidyuti Bhawan, Panaji,
Goa – 403 001.



16. Transmission Corporation of Telangana Limited,
Vidhyut Sudha, Khairatabad,
Hyderabad – 500 082.

17. Tamil Nadu Transmission Corporation,
NPKRR Maaligai, 800, Anna Salai,
Chennai – 600 002.

.....Respondent(s)

For Petitioner:

Shri S. S. Raju, PGCIL
Shri D.K. Biswal, PGCIL
Shri Ved Prakash Rastogi, PGCIL
Shri A.K. Verma, PGCIL

For Respondents:

Shri S. Vallinayagam, Advocate, TANGEDCO
Dr. R. Kathiravan, TANGEDCO
Ms. R. Ramalakshmi, TANGEDCO
Shri R. Srinivasan, TANGEDCO

ORDER

The instant petition has been filed by Power Grid Corporation of India Limited, a deemed transmission licensee, for revision of transmission tariff of 2004-09 and 2009-14 periods, truing up of transmission tariff for the period from 1.4.2014 to 31.3.2019 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and for determination of tariff for the period from 1.4.2019 to 31.3.2024 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) in respect of the following transmission assets under “Fixed Series Compensation on 400 kV lines” in Southern Region (hereinafter referred to as “the transmission project”):

- a) **Asset-1:** 40% fixed series compensation on Gooty – Neelmangla line-I at Gooty, Kadapa Nagarjunasagar Circuit-I and Circuit-II at Kadapa, and
- b) **Asset-2:** 40% fixed series compensation on Gooty-Neelmangla line-II at Gooty.



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 tried up Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the assets covered under this petition, as per para 9 and 10 above.

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

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

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

5) Allow the petitioner to 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."

Backdrop of the case

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



(a) The Investment Approval (IA) for the transmission project was accorded by Board of Directors of the Petitioner Company vide letter dated 22.10.2002 at an estimated cost of ₹ 5793.00 lakh which included IDC of ₹ 443.00 lakh based on 2nd quarter of 2002 price level.

(b) The scope of work covered under the transmission project is as follows:

Assets	Asset Name
Asset-1	a) 40% fixed series compensation on Gooty – Neelmangla line-I at Gooty, Kadapa Nagarjunasagar Circuit-I and Circuit-II at Kadapa,
Asset-2	a) 40% fixed series compensation on Gooty – Neelmangla line-II at Gooty

(c) The complete scope of the work is covered in the instant petition.

(d) Asset-1 was put into commercial operation on 1.11.2004. The transmission tariff from the date of commercial operation (COD) to 31.3.2009 was approved vide order dated 16.11.2006 in Petition No. 20/2006 and was revised on account of Additional Capital Expenditure (ACE) during 2004-05 and 2005-06 periods vide order dated 23.3.2007 in Petition No. 129/ 2006.

(e) Asset-2 was put into commercial operation on 1.5.2005. The transmission tariff from COD to 31.3.2009 with respect to Asset-2 was approved vide order dated 23.3.2007 in Petition No. 129/2006 and it was revised on account of additional capitalization during 2006-07 period vide order dated 26.6.2009 in Petition No. 49/2009.

(f) The transmission assets were combined during 2009-14 period and tariff was claimed as Combined Asset. The transmission tariff with respect to Combined Asset for 2009-14 period was allowed vide order dated 9.2.2011 in Petition No. 112/2010 in accordance with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as “the 2009 Tariff Regulations”).

(g) COD of Combined Asset was considered as 1.5.2005.



(h) 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 6.11.2015 in Petition No. 143/TT/2014.

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

(j) The APTEL, vide 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:

SI. 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 No. 94 of 2005 and Appeal No. 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. 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.



(k) The APTEL vide 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/ directions of the APTEL are as follows:

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.	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. 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. 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.

(l) 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.



(m) Based on APTEL's judgments dated 22.1.2007 in Appeal No. 81 of 2005 and batch matters and 13.6.2007 in Appeal No. 139 of 2007 and batch cases, the Petitioner had sought re-determination 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.

(n) The Hon'ble Supreme Court vide 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.

(o) Consequent to the Hon'ble Supreme Court's order dated 10.4.2018 in NTPC matter, Petition No. 121/2007 was listed for hearing on 8.1.2019. The Commission vide order dated 18.1.2019 in Petition No. 121/2007, directed the Petitioner to submit its claim separately for the assets at the time of filing of truing up petitions for 2014-19 tariff period in respect of concerned transmission assets.

(p) Accordingly, the Petitioner has sought revision of transmission tariff approved for 2004-09 period on account of change in IoL and IWC to the extent of revision in IoL and Maintenance Spares in terms of the APTEL's judgments dated 22.1.2007 and 13.6.2007.

(q) The instant petition was heard on 3.8.2021 and in view of the APTEL's judgment dated 22.1.2007 in Appeal No. 81 of 2005 and batch matters and judgment dated 13.6.2007 in Appeal No. 139 of 2006 and batch cases and the order of Hon'ble Supreme Court dated 10.4.2018, transmission 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, if any, are being 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 Southern 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 notices published in the newspapers. Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO), i.e. Respondent No. 4, has filed its reply vide affidavit dated 21.8.2021 and has raised the issues of retrospective revision of tariff, burden on consumers and sharing of transmission charges. In response, the Petitioner has filed rejoinder vide affidavit dated 7.9.2021. The issues raised by TANGEDCO and clarifications given by the Petitioner are considered in the relevant portions of this order.

Re: Interest on Loan (“IoL”)

6. The APTEL while dealing with the issue of computation of IoL, in judgment dated 22.1.2007, observed that IoL for the period from 1.4.1998 to 31.3.2001 shall be computed only on normative loan repayment as per its judgment dated 14.11.2006 in Appeal No. 94 of 2005 and Appeal No. 96 of 2005. 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 for the period from 1.4.1998 to 31.3.2001. In view of judgment of APTEL, interest allowed for 2004-09 tariff period is revised on the basis of the normative debt repayment methodology.



Re: Additional Capital Expenditure (“ACE”)

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

Re: Depreciation

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

9. The revision of transmission tariff allowed for 2004-09 period necessitates the revision of transmission tariff allowed for 2009-14 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, in the case of 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 2004-09 and 2009-14 tariff periods. Therefore, we direct that the Petitioner will neither claim nor pay any carrying cost from or to the beneficiaries for the difference, if any, in the



tariff allowed earlier and the tariff being allowed in the instant order. Further, the said difference in tariff shall be recovered/ paid over a period of six months from the date of issue of this order.

10. The hearing in the matter was held on 3.8.2021 through video conference and order was reserved.

11. This order is issued considering the submissions made by the Petitioner in the petition *vide* affidavit dated 14.11.2019, Petitioner's affidavit dated 1.7.2021, TANGEDCO's reply filed *vide* affidavit dated 21.8.2021 and the Petitioner's rejoinder affidavit dated 7.9.2021 to the reply filed by TANGEDCO .

12. Having heard the representatives of the Petitioner, learned counsel for TANGEDCO and having perused the material on record, we proceed to dispose of the petition.

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

13. In the course of hearing the present petition on 3.8.2021, learned counsel for TANGEDCO submitted that the submissions made by him in Petition No. 243/TT/2020 on the issue of maintainability may also be considered in the present petition apart from the separate reply to be filed by him in this matter on behalf of TANGEDCO.

14. Learned counsel for TANGEDCO submitted that the Petitioner cannot claim retrospective revision of tariff. Present claim of revision of tariff has been made by the Petitioner on account of liberty given by the Commission *vide* order dated 18.1.2019 in Petition No. 121/2007. TANGEDCO has further submitted that Petition No. 121/2007 was filed under Section 64(5) and Section 79 of the Electricity Act, 2003 (for short hereinafter referred to as 'the Act'), wherein invocation of Section 64(5) of the Act was



erroneous inasmuch as this section specifically relates to State Electricity Regulatory Commissions. Therefore, the Petitioner could have only filed a Review Petition or an Appeal insofar as Petition No. 121/2007 was concerned. Hence, the said order is erroneous. TANGEDCO further submitted that the Petitioner was not a party to Appeal No. 81 of 2005 and Appeal No. 139 of 2006 which were filed by NTPC. The Petitioner cannot be allowed to take advantage of judgments of APTEL issued in favour of NTPC when the Petitioner does not have a finding in its favour from APTEL. It has been further submitted by TANGEDCO that a clear reading of the judgment dated 13.6.2007 in Appeal No. 139 of 2006 would show that APTEL did not allow revision of tariff in the said judgment. TANGEDCO has submitted that NTPC went in Appeal against the order of the Commission in the same tariff period and, hence, the said judgment is applicable only for 2004-09 tariff period and the Petitioner cannot make a claim for revision based on the same. Similarly, the judgment of APTEL in Appeal No. 81 of 2005 is applicable for 2001-04 tariff period only. TANGEDCO has submitted that the Petitioner herein misled the Commission by stating that the aforementioned judgments allowed retrospective revision of tariff. Furthermore, none of the Tariff Regulations permit a retrospective revision of tariff. The judgments in Appeal No. 81 of 2005 and Appeal No. 139 of 2006 are specific to NTPC. The said judgments cannot be applied in an omnibus manner. Lastly, TANGEDCO has submitted that it is impossible to make retrospective calculations in ARR (Annual Revenue Requirements) of the DISCOMs and as a result of the instant revision of tariff, the current consumers of the DISCOMs will be burdened with financial liability which should not be allowed. TANGEDCO has also relied upon the judgment of Hon'ble Supreme Court in (2009) 6 SCC 235 UP Power Corporation Ltd. V. National Thermal Power Corporation Ltd. in the reply filed vide affidavit dated 21.8.2021 to contend that



the arrears pertaining to two decades cannot be recovered from the present consumers and it is legally not tenable.

15. In response, the Petitioner submitted that TANGEDCO has been raising the same issues in multiple petitions wherein its contentions have been rejected by the Commission. The Petitioner has further submitted that TANGEDCO is referring to selective portions of the judgment of Hon'ble Supreme Court in (2009) 6 SCC 235 (supra) to support its submissions. A clear reading of the judgments relied upon by TANGEDCO shows that revision of tariff as claimed in the instant petition has been upheld, both by the APTEL and by Hon'ble Supreme Court. The Petitioner has also submitted that the judgments of the APTEL dated 22.1.2007 and 13.6.2007 in Appeal No. 81 of 2005 and Appeal No. 139 of 2006 respectively are equally applicable to the Petitioner since the interpretation of regulations of APTEL is equally applicable to all the parties and cannot be restricted to just one party. The Petitioner has further contended that when liberty has been granted by a competent court of law, the said liberty cannot be taken away just on account of lapse of time and application under said liberty cannot be said to be retrospective. In addition to this, the Petitioner has controverted the submissions of TANGEDCO and reiterated that its claim for revision of tariff is tenable.

16. We have considered the submissions of TANGEDCO and the Petitioner. The basic contention of TANGEDCO is that tariff of the transmission assets cannot be revised retrospectively and that it is not possible for TANGEDCO to recover the revised tariff as its consumer base keep changing every year. The Petitioner has contended that it approached the Commission in the year 2007 itself for implementation of APTEL judgments dated 22.1.2007 and 13.6.2007 in Appeal No.



81/2005 and Appeal No. 139/2006, respectively, which were implemented in the case of NTPC. However, they were not implemented in the case of the Petitioner because of the pending Appeals before the Hon'ble Supreme Court. The Petitioner has further contended that its claim for revision of tariff of transmission assets is legitimate and it is as per the Commission's order dated 18.1.2019.

17. Similar issues were raised by BRPL and BSPHCL and the Commission vide order dated 6.11.2019 in Petition No. 288/TT/2019 and batch cases held that the Petitioner is eligible for revision of tariff of its transmission assets on the basis of the APTEL judgements dated 22.1.2007 and 13.6.2007. TANGEDCO had also raised this contention in several other petitions and the Commission has rejected the same. Accordingly, we allow the Petitioner's prayer and revise the tariff for 2004-09 and 2009-14 tariff periods of the transmission assets.

2004-09 Tariff Period

18. The Commission approved the transmission charges for 2004-09 period for Asset-1 vide order dated 16.11.2009 in Petition No. 20/2006 and further revised the same on account of ACE for 2004-05 and 2005-06 periods vide order dated 23.3.2007 in Petition No.129/ 2006. The Commission approved the transmission tariff with respect to Asset-2 vide order dated 23.3.2007 in Petition No. 129/2006 and further revised the same on account of ACE for 2006-07 period vide order dated 26.6.2009 in Petition No. 49/2009. The details of tariff approved in respect of transmission assets are as follows:



(₹ in lakh)

Asset-1					
Particulars	2004-05 (Pro-rata for 5 months)	2005-06	2006-07	2007-08	2008-09
Depreciation	59.20	143.99	145.71	145.71	145.71
Return on Equity	53.34	130.25	132.26	132.26	132.26
O&M Expenses	35.15	87.75	91.26	94.89	98.70
Advance against Depreciation	0.00	0.00	63.26	92.36	92.36
Interest on Loan	104.99	246.50	234.21	215.20	195.22
Interest on Working Capital	6.41	15.55	16.85	17.38	17.42
Total	259.09	624.04	683.55	697.80	681.67

(₹ in lakh)

Asset-2				
Particulars	2005-06 (Pro-rata for 11 months)	2006-07	2007-08	2008-09
Depreciation	46.93	52.69	52.76	52.76
Return on Equity	54.75	61.47	61.56	61.56
O&M Expenses	26.81	30.42	31.63	32.90
Advance against Depreciation	0.00	8.93	18.94	18.94
Interest on Loan	73.87	78.50	72.97	66.97
Interest on Working Capital	5.07	5.82	6.02	6.05
Total	207.43	237.83	243.88	239.18

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

(₹ in lakh)

Asset-1					
Particulars	2004-05 (Pro-rata for 5 months)	2005-06	2006-07	2007-08	2008-09
Depreciation	59.2	143.99	145.71	145.71	145.71
Return on Equity	53.34	130.25	132.26	132.26	132.26
O&M Expenses	35.15	87.75	91.26	94.89	98.7
Advance against Depreciation	0.00	0.00	0.00	0.00	92.80
Interest on Loan	106.02	257.56	250.72	230.38	209.00
Interest on Working Capital	6.43	15.95	16.30	16.33	17.97
Total	260.14	635.50	636.26	619.57	696.45



(₹ in lakh)

Asset-2				
Particulars	2005-06 Pro-rata for 11 months	2006-07	2007-08	2008-09
Depreciation	46.93	52.69	52.76	52.76
Return on Equity	54.75	61.47	61.56	61.56
O&M Expenses	26.81	30.42	31.63	32.90
Advance against Depreciation	0.00	0.00	0.00	9.72
Interest on Loan	75.64	82.25	76.46	70.18
Interest on Working Capital	5.14	5.82	5.86	6.05
Total	209.27	232.65	228.27	233.17

20. We have considered the submissions of the Petitioner. The transmission tariff is allowed in respect of the transmission assets on the basis of the following:

- a) Admitted capital cost of ₹3941.63 lakh and ₹1382.59 lakh as on COD in case of Asset-1 and Asset-2;
- b) ₹10.19 lakh and ₹95.73 lakh as ACE during 2004-05 and 2005-06 periods for Asset 1 and ₹78.81 lakh and ₹4.19 lakh during 2005-06 and 2006-07 periods for Asset-2;
- c) Weighted Average Rate of Interest (WAROI) on actual loan in respect of Asset-1 is adopted from order dated 23.3.2007 in Petition No.129/ 2006;
- d) Weighted Average Rate of Interest (WAROI) on actual loan in respect of Asset-2 is adopted from orders dated 23.3.2007 and 26.6.2009 in Petition No. 20/2006 and Petition No. 49/ 2009 respectively; and
- e) Weighted Average Rate of Depreciation (WAROD), Rate of Interest (RoI) for Working Capital and O&M Expenses in respect of Asset-1 are as per order dated 23.3.2007 in Petition No. 129/ 2006 and with regard to Asset 2 are as per orders dated 23.3.2007 and 26.6.2009 in Petition No. 129/ 2006 and Petition No. 49/2009.

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



(₹ in lakh)

Asset-1					
Particulars	2004-05 (Pro-rata for 5 months)	2005-06	2006-07	2007-08	2008-09
Depreciation	59.20	143.99	145.71	145.71	145.71
Return on Equity	53.34	130.25	132.26	132.26	132.26
O&M Expenses	35.15	87.75	91.26	94.89	98.70
Advance against Depreciation	0.00	0.00	63.26	74.38	74.38
Interest on Loan	104.97	246.51	234.23	198.99	180.57
Interest on Working Capital	6.41	15.61	16.96	16.91	16.99
Total	259.07	624.11	683.69	663.15	648.61

(₹ in lakh)

Asset-2				
Particulars	2005-06 (Pro-rata for 11 months)	2006-07	2007-08	2008-09
Depreciation	46.93	52.69	52.76	52.76
Return on Equity	54.75	61.47	61.56	61.56
O&M Expenses	26.81	30.42	31.63	32.90
Advance against Depreciation	0.00	8.93	18.94	18.94
Interest on Loan	73.86	78.48	72.96	66.97
Interest on Working Capital	5.11	5.91	6.12	6.15
Total	207.46	237.89	243.97	239.28

22. The Annual Fixed Charges (AFC) allowed for 2004-09 tariff period for Asset-1 vide order dated 23.3.2007 in Petition No. 129/2006 and AFC allowed for 2004-09 tariff period for Asset-2 vide orders dated 23.3.2007 and 26.6.2009 in Petition No. 129/2006 49/2009, the revised AFC claimed in the instant petition and AFC allowed in the instant order are as follows:

(₹ in lakh)

Asset-1					
Particulars	2004-05 (Pro-rata for 5 months)	2005-06	2006-07	2007-08	2008-09
AFC approved vide order dated 23.3.2007 in Petition No. 129/2006.	259.09	624.04	683.55	697.80	681.67
AFC claimed by the Petitioner in the instant petition.	260.14	635.50	636.26	619.57	696.45
AFC allowed in the instant order.	259.07	624.11	683.69	663.15	648.61



(₹ in lakh)

Asset-2				
Particulars	2005-06	2006-07	2007-08	2008-09
AFC approved vide order dated 23.3.2007 in Petition No. 129/2006 and order dated 26.6.2009 in Petition No. 49/2009.	207.43	237.83	243.88	239.18
AFC claimed by the Petitioner in the instant petition.	209.27	232.65	228.27	233.17
AFC allowed in the instant order.	207.46	237.89	243.97	239.28

2009-14 Tariff Period

23. Asset-1 and Asset-2 were combined during 2009-14 period and the Petitioner had claimed transmission tariff for Combined Asset during 2009-14 period.

24. The Commission vide order dated 9.2.2011 in Petition No. 112/2010 approved the transmission tariff with respect to the Combined Asset for 2009-14 period and subsequently vide order dated 6.11.2015 in Petition No.143/TT/2014 trued up the tariff allowed for 2009-14 tariff period and the same is as follows:

(₹ in lakh)

Combined Asset					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	291.09	291.09	291.09	291.09	291.09
Return on Equity	258.53	268.00	268.26	268.26	271.48
O&M Expenses	209.60	221.60	234.28	247.68	261.84
Interest on Loan	237.04	212.68	188.32	163.95	139.58
Interest on Working Capital	26.88	27.17	27.30	27.46	27.73
Total	1023.14	1020.54	1009.26	998.45	991.73

25. The Petitioner has claimed the following revised transmission charges for the Combined Asset for 2009-14 period in this petition:

(₹ in lakh)

Combined Asset					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	291.09	291.09	291.09	291.09	291.09
Return on Equity	258.53	268.00	268.26	268.26	271.48
O&M Expenses	209.60	221.60	234.28	247.68	261.84
Interest on Loan	253.07	228.71	204.34	179.96	155.57
Interest on Working Capital	27.21	27.50	27.64	27.80	28.07
Total	1039.51	1036.90	1025.60	1014.78	1008.04



26. We have considered the Petitioner's claim. The tariff is allowed with respect to the Combined Asset on the basis of the following:

- a) Admitted capital cost of ₹5513.14 lakh for Combined Asset as on 1.4.2009;
- b) WAROI on actual loan derived/adopted from order dated 6.11.2015 in Petition No. 143/TT/2014, and
- c) WAROD as per order dated 6.11.2015 in Petition No. 143/TT/2014.

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

(₹ in lakh)					
Combined Asset					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	291.09	291.09	291.09	291.09	291.09
Interest on Loan	240.04	215.68	191.31	166.94	142.57
Return on equity	258.53	268.00	268.26	268.26	271.48
Interest on Working Capital	26.94	27.23	27.36	27.53	27.79
O&M Expenses	209.60	221.60	234.28	247.68	261.84
Total	1026.20	1023.60	1012.31	1001.50	994.78

28. AFC allowed for 2009-14 tariff period vide order dated 6.11.2015 in Petition No. 143/TT/2014, the revised AFC claimed in the instant petition and AFC allowed in the instant order are as follows:

(₹ in lakh)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
AFC approved vide order dated 6.11.2015 in Petition No. 143/TT/2014.	1023.14	1020.54	1009.26	998.45	991.73
AFC claimed by the Petitioner in the instant petition.	1039.51	1036.90	1025.60	1014.78	1008.04
AFC allowed in the instant order.	1026.20	1023.60	1012.31	1001.50	994.78



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

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

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	291.09	291.09	291.09	291.09	107.23
Interest on Loan	131.15	106.69	82.09	56.81	38.02
Return on equity	271.69	272.94	272.80	272.80	273.53
Interest on Working Capital	29.30	29.21	29.09	28.98	24.82
O&M Expenses	241.20	249.20	257.48	266.04	274.84
Total	964.43	949.13	932.55	915.72	718.44

30. The details of trued-up IWC claimed by the Petitioner in respect of the Combined Asset are as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	20.10	20.77	21.46	22.17	22.90
Maintenance Spares	36.18	37.38	38.62	39.91	41.23
Receivables	160.74	158.19	155.43	152.62	119.74
Total	217.02	216.34	215.51	214.70	183.87
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	29.30	29.21	29.09	28.98	24.82

Capital Cost as on 1.4.2014

31. The capital cost with respect to the Combined Asset has been calculated in accordance with Regulation 9(3) and 9(6) of the 2014 Tariff Regulations. The Commission vide order dated 6.11.2015 in Petition No. 143/TT/2014 approved the transmission tariff with respect to Combined Asset for 2014-19 period based on admitted capital cost of ₹5513.14 lakh as on 31.3.2014. Therefore, admitted capital cost of ₹5513.14 lakh as on 31.3.2014 has been considered for working out the trued up tariff for 2014-19 period.

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



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

33. The capital cost considered for truing up of tariff 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
5513.14	0.00	5513.14

Debt-Equity Ratio

34. 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 74.89:25.11 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 period with respect to the Combined Asset. The details of debt-equity ratio allowed in respect of the Combined 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	4128.72	74.89	4128.72	74.89
Equity	1384.42	25.11	1384.42	25.11
Total	5513.14	100.00	5513.14	100.00

Depreciation

35. The depreciation has been worked out as per the methodology provided under Regulation 27 of the 2014 Tariff Regulations. The Commission vide order dated 6.11.2015 in Petition No. 143/TT/2014 considered the Petitioner's affidavit dated 2.11.2015 clarifying COD of the transmission system as 1.5.2005. As the transmission assets has attained the life of 12 years as on 31.3.2018, the remaining depreciable value of ₹1237.68 lakh has been spread over the balance useful life of 13 years in



accordance with Regulation 27(5) of the 2014 Tariff Regulations. The Gross Block during 2014-19 tariff period has been depreciated at WAROD. WAROD (as placed in Annexure-I) has been worked out after taking into account the depreciation rates of assets as prescribed in the 2014 Tariff Regulations. Accordingly, depreciation allowed for 2014-19 tariff period in respect of Combined Asset is as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	5513.14	5513.14	5513.14	5513.14	5513.14
Additional Capitalisation	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	5513.14	5513.14	5513.14	5513.14	5513.14
Average Gross Block	5513.14	5513.14	5513.14	5513.14	5513.14
WAROD (in %)	5.28	5.28	5.28	5.28	2.05
Balance useful life (at the beginning of the year) (Year)	17.00	16.00	15.00	14.00	13.00
Aggregate Depreciable Value	4961.83	4961.83	4961.83	4961.83	4961.83
Depreciation during the year	291.09	291.09	291.09	291.09	95.21
Cumulative Aggregate Depreciation	2850.86	3141.95	3433.05	3724.14	3819.35
Remaining Aggregate Depreciable Value	2110.97	1819.87	1528.78	1237.68	1142.48

36. Accordingly, depreciation approved vide order dated 6.11.2015 in Petition No.143/TT/2014, as claimed by the Petitioner in the instant petition and trued up depreciation in respect of the Combined Asset in the instant order is as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 6.11.2015 in Petition No. 143/TT/2014.	291.09	291.09	291.09	291.09	92.44
Claimed by the Petitioner in the instant petition	291.09	291.09	291.09	291.09	107.23
Allowed after true-up in this order	291.09	291.09	291.09	291.09	95.21

Interest on Loan (“IoL”)

37. 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 the IoL based on actual interest rate, in accordance with Regulation 26 of the 2014 Tariff Regulations. IoL 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 tariff period 2014-19 has been considered to be equal to the depreciation allowed for that period.

38. The details of trued up IoL allowed in respect of Combined Asset for 2014-19 period is as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	4128.72	4128.72	4128.72	4128.72	4128.72
Cumulative Repayments up to Previous Year	2559.77	2850.86	3141.95	3433.05	3724.14
Net Loan-Opening	1568.95	1277.86	986.77	695.67	404.58
Additions due to ACE	0.00	0.00	0.00	0.00	0.00
Repayment during the year	291.09	291.09	291.09	291.09	95.21
Net Loan-Closing	1277.86	986.77	695.67	404.58	309.37
Average Loan	1423.41	1132.31	841.22	550.12	356.97
Weighted Average Rate of Interest on Loan (in %)	8.302	8.279	8.229	8.041	7.495
Interest on Loan	118.17	93.74	69.22	44.23	26.75

39. Accordingly, IoL approved vide order dated 6.11.2015 in Petition No.143/TT/2014, as claimed by the Petitioner in the instant petition and allowed after truing up in respect of the Combined Asset in the instant order is as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 6.11.2015 in Petition No. 143/TT/2014.	115.19	90.77	66.26	41.34	24.16
Claimed by the Petitioner in the instant petition.	131.15	106.69	82.09	56.81	38.02
Allowed after true-up in this order	118.17	93.74	69.22	44.23	26.75

Return on Equity (“RoE”)

40. The Petitioner has claimed RoE in respect of the Combined Asset in terms of Regulation 24 and Regulation 25 of the 2014 Tariff Regulations. The Petitioner has submitted that it is liable to pay income tax at MAT rates and has claimed 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

41. 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 given in the table below:

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

42. MAT rates considered vide order dated 27.4.2020 in Petition No. 274/TT/2019 are considered for the purpose of grossing up of rate of RoE for truing up of 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)	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



43. The details of trued up RoE allowed in respect of the Combined Asset are as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	1384.42	1384.42	1384.42	1384.42	1384.42
Addition due to ACE	0.00	0.00	0.00	0.00	0.00
Closing Equity	1384.42	1384.42	1384.42	1384.42	1384.42
Average Equity	1384.42	1384.42	1384.42	1384.42	1384.42
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
Tax Rate applicable (in %)	20.961	21.342	21.342	21.342	21.549
Applicable ROE Rate (in %)	19.610	19.705	19.705	19.705	19.758
Return on Equity for the year	271.48	272.80	272.80	272.80	273.53

44. Accordingly, RoE approved vide order dated 6.11.2015 in Petition No.143/TT/2014, as claimed in the instant petition and trued up in the instant order in respect of the Combined Asset is as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 6.11.2015 in Petition No. 143/TT/2014.	271.48	271.48	271.48	271.48	271.48
Claimed by the Petitioner in the instant petition.	271.69	272.94	272.80	272.80	273.53
Allowed after true-up in this order.	271.48	272.80	272.80	272.80	273.53

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

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

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Sub-station					
400 kV Gooty: FSC for 400 kV Gooty-Neelmangala Ckt I and Ckt II.	2	2	2	2	2
400 kV Cuddapah: FSC for 400 kV Cuddapah- Nagarjunasagar Ckt I and Ckt II.	2	2	2	2	2
Norms (₹ lakh/Bay)					



400 kV	60.30	62.30	64.37	66.51	68.71
O&M Expenses Sub-station	241.20	249.20	257.48	266.04	274.84
Total O&M Expenses (₹ in lakh)	241.20	249.20	257.48	266.04	274.84

46. Accordingly, O&M Expenses approved order dated 6.11.2015 in Petition No. 143/TT/2014, as claimed in the instant petition and trued up in the instant order in respect of the Combined Asset are as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 6.11.2015 in Petition No. 143/TT/2014.	241.20	249.30	257.48	266.04	274.84
Claimed by the Petitioner in the instant petition.	241.20	249.20	257.48	266.04	274.84
Allowed after true up in this order.	241.20	249.20	257.48	266.04	274.84

Interest on Working Capital (“IWC”)

47. The Petitioner is entitled to IWC as per Regulation 28 of the 2014 Tariff Regulations in respect of the Combined Asset.

48. IWC worked out as per the methodology provided under Regulation 28 of the 2014 Tariff Regulations and allowed in respect of the Combined Asset is 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)	20.10	20.77	21.46	22.17	22.90
Working Capital for Maintenance Spares (15% of O&M)	36.18	37.38	38.62	39.91	41.23
Working Capital for Receivables (Equivalent to two months of annual transmission charges)	158.49	155.96	153.23	150.48	115.77
Total Working Capital	214.77	214.10	213.31	212.55	179.90
Rate of Interest on working capital (in %)	13.50	13.50	13.50	13.50	13.50
Interest of Working Capital	28.99	28.90	28.80	28.69	24.29

49. Accordingly, IWC approved order dated 6.11.2015 in Petition No. 143/TT/2014, IWC claimed in the instant petition and trued up IWC in the instant order in respect of the Combined Asset are as follows:



(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 6.11.2015 in Petition No. 143/TT/2014.	28.93	28.81	28.70	28.60	24.12
Claimed by the Petitioner in the instant petition.	29.30	29.21	29.09	28.98	24.82
Allowed after true-up in this order.	28.99	28.90	28.80	28.69	24.29

Approved Annual Fixed Charges for 2014-19 Tariff Period

50. The tried up AFC allowed in respect of the Combined Asset for 2014-19 tariff period are as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	291.09	291.09	291.09	291.09	95.21
Interest on Loan	118.17	93.74	69.22	44.23	26.75
Return on Equity	271.48	272.80	272.80	272.80	273.53
O&M Expenses	241.20	249.20	257.48	266.04	274.84
Interest on Working Capital	28.99	28.90	28.80	28.69	24.29
Total	950.94	935.74	919.39	902.86	694.62

51. Accordingly, the details of the Annual Transmission Charges as approved vide order dated 6.11.2015 in Petition No. 143/TT/2014, as claimed by the Petitioner in the instant petition and as approved after truing up in the instant order are as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed earlier vide order dated 6.11.2015 in Petition No. 143/TT/2014.	947.89	931.45	915.01	898.55	687.04
Claimed by the Petitioner in the instant petition.	964.43	949.13	932.55	915.72	718.44
Allowed after true-up in this order.	950.94	935.74	919.39	902.86	694.62

Determination of Annual Fixed Charges for 2019-24 Tariff Period

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



					(₹ in lakh)
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	107.23	107.23	107.24	107.23	107.24
Interest on Loan	32.61	23.87	15.13	6.39	1.01
Return on Equity	260.02	260.02	260.02	260.02	260.02
Interest on Working Capital	11.62	11.70	11.78	11.86	11.97
O&M Expenses	128.60	133.12	137.80	142.64	147.64
Total	540.08	535.94	531.97	528.14	527.88

53. The Petitioner has claimed the following IWC in respect of the Combined Asset for 2019-24 period:

					(₹ in lakh)
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	10.72	11.09	11.48	11.89	12.30
Maintenance Spares	19.29	19.97	20.67	21.40	22.15
Receivables	66.40	66.07	65.58	65.11	64.90
Total	96.41	97.13	97.73	98.40	99.35
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	11.62	11.70	11.78	11.86	11.97

Capital Cost

54. 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 GrameenVidyutikaranYojana (RGGVY) and DeendayalUpadhyaya Gram JyotiYojana (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.”

55. The Petitioner has claimed capital cost of ₹5513.14 lakh in respect of the Combined Asset as on 31.3.2019 which is the same as worked out by the Commission. Accordingly, the capital cost of ₹5513.14 lakh in respect of Combined Asset has been considered as on 1.4.2019 for determination of tariff in accordance with Regulation 19 of the 2019 Tariff Regulations.

56. The Petitioner has not claimed any ACE for 2019-24 tariff period in respect of the Combined Asset.

Debt-Equity Ratio

57. 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.”

58. The details of debt-equity ratio considered for the purpose of tariff of 2019-24 tariff period in respect of the Combined Asset 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	4128.72	74.89	4128.72	74.89
Equity	1384.42	25.11	1384.42	25.11
Total	5513.14	100.00	5513.14	100.00

Depreciation

59. 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.”

60. The Combined Asset has already completed 12 years before 1.4.2019. Accordingly, depreciation has been calculated based on remaining depreciable value (upto 90% of existing gross block of assets) to be recovered over the balance useful life. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation upto 31.3.2019. The depreciation worked out 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	5513.14	5513.14	5513.14	5513.14	5513.14
Addition during 2019-24 due to projected ACE	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	5513.14	5513.14	5513.14	5513.14	5513.14
Average Gross Block	5513.14	5513.14	5513.14	5513.14	5513.14
Balance useful life at the beginning of the year (Year)	12.00	11.00	10.00	9.00	8.00
Depreciable Value	4961.83	4961.83	4961.83	4961.83	4961.83
Rate of Depreciation (in %)	2.05	2.05	2.05	2.05	2.05
Depreciation during the year	95.21	95.21	95.21	95.21	95.21
Cumulative Aggregate Depreciation	3914.55	4009.76	4104.97	4200.17	4295.38
Remaining Aggregate Depreciable Value	1047.27	952.06	856.86	761.65	666.45

Interest on Loan (“IoL”)

61. 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”.

62. WAROI 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 Combined Asset is as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	4128.72	4128.72	4128.72	4128.72	4128.72
Cumulative Repayments up to Previous Year	3819.35	3914.55	4009.76	4104.97	4128.72



Net Loan-Opening	309.37	214.17	118.96	23.75	0.00
Additions	0.00	0.00	0.00	0.00	0.00
Repayment during the year	95.21	95.21	95.21	23.75	0.00
Net Loan-Closing	214.17	118.96	23.75	0.00	0.00
Average Loan	261.77	166.56	71.36	11.88	0.00
Weighted Average Rate of Interest on Loan (in %)	8.150	8.150	8.150	8.150	8.150
Interest on Loan	21.33	13.57	5.82	0.97	0.00

Return on Equity (“RoE”)

63. 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.”



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

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	1384.42	1384.42	1384.42	1384.42	1384.42
Additions due to ACE	0.00	0.00	0.00	0.00	0.00
Closing Equity	1384.42	1384.42	1384.42	1384.42	1384.42
Average Equity	1384.42	1384.42	1384.42	1384.42	1384.42
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	260.02	260.02	260.02	260.02	260.02

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

65. 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



Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<i>Single Circuit (Bundled conductor with four sub-conductors)</i>	0.755	0.781	0.809	0.837	0.867
<i>Single Circuit (Twin & Triple Conductor)</i>	0.503	0.521	0.539	0.558	0.578
<i>Single Circuit (Single Conductor)</i>	0.252	0.260	0.270	0.279	0.289
<i>Double Circuit (Bundled conductor with four or more sub-conductors)</i>	1.322	1.368	1.416	1.466	1.517
<i>Double Circuit (Twin & Triple Conductor)</i>	0.881	0.912	0.944	0.977	1.011
<i>Double Circuit (Single Conductor)</i>	0.377	0.391	0.404	0.419	0.433
<i>Multi Circuit (Bundled Conductor with four or more sub-conductor)</i>	2.319	2.401	2.485	2.572	2.662
<i>Multi Circuit (Twin & Triple Conductor)</i>	1.544	1.598	1.654	1.713	1.773
<i>Norms for HVDC stations</i>					
<i>HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)</i>	834	864	894	925	958
<i>Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)</i>	1,666	1,725	1,785	1,848	1,913
<i>500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)</i>	2,252	2,331	2,413	2,498	2,586
<i>±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)</i>	2,468	2,555	2,645	2,738	2,834
<i>±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)</i>	1,696	1,756	1,817	1,881	1,947
<i>±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)</i>	2,563	2,653	2,746	2,842	2,942

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

Provided further that:

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



Compensator shall be worked at 1.5% of original project cost as on commercial operation which shall be escalated at the rate of 3.51% to work out the O&M expenses during the tariff period. The O&M expenses of Static Synchronous Compensator and Static Var Compensator, if required, may be reviewed after three years.

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

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

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

(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.”

66. O& M Expenses in respect of the Combined Asset has been worked out as per the norms specified in the 2019 Tariff Regulations and the same are as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Sub-station					
400 kV Gooty: FSC for 400 kV Gooty- Neelmangala Ckt I and Ckt II	2	2	2	2	2
400 kV Cuddapah: FSC for 400 kV Cuddapah- Nagarjunasagar Ckt I and Ckt II	2	2	2	2	2
Norms (₹ lakh/Bay)					
400 kV	32.15	33.28	34.45	35.66	36.91
O&M Expenses Sub-station	128.60	133.12	137.80	142.64	147.64
Total O&M Expenses (₹ in lakh)	128.60	133.12	137.80	142.64	147.64

Interest on Working Capital (“IWC”)

67. 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 Capita: (1) The working capital shall cover:(a)Xxxx
(b)Xxxx

(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;”

68. 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%.

69. 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 Combined Asset for 2019-24 period 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)	10.72	11.09	11.48	11.89	12.30
Working Capital for Maintenance Spares (20% of O&M)	19.29	19.97	20.67	21.40	22.15
Working Capital for Receivables (Equivalent to 45 days of annual transmission charges)	63.50	63.19	62.73	62.74	63.09
Total Working Capital	93.50	94.25	94.88	96.03	97.54
Rate of Interest on working capital (in %)	12.05%	11.25%	10.50	10.50	10.50
Interest of Working Capital	11.27	10.60	9.96	10.08	10.24

Annual Fixed Charges for 2019-24 Tariff Period

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

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	95.21	95.21	95.21	95.21	95.21
Interest on Loan	21.33	13.57	5.82	0.97	0.00
Return on Equity	260.02	260.02	260.02	260.02	260.02
O&M Expenses	128.60	133.12	137.80	142.64	147.64
Interest on Working Capital	11.27	10.60	9.96	10.08	10.24
Total	516.43	512.53	508.81	508.92	513.11

71. The Petitioner has sought recovery of deferred tax liability before 1.4.2009 from the beneficiaries or long term consumers/ DICs as and when materialized. The deferred tax liability shall be dealt as per Regulation 49 of the 2014 Tariff Regulations/Regulation 67 of 2019 Tariff Regulations as applicable. Accordingly, the Petitioner is entitled to recover the deferred tax liability up to 31.3.2009 whenever the same is materialized directly from the beneficiaries or long term transmission customers /DICs.

Filing Fee and Publication Expenses

72. The Petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses. The Petitioner shall be entitled to 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

73. 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.

Goods and Services Tax (GST)

74. 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.

75. We have considered the submissions 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

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



77. We have considered the submissions of the 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 Commission vide order dated 3.8.2021 in Petition No. 260/MP/2020 approved security expenses from 1.4.2019 to 31.3.2024. Therefore, security expenses will be shared in terms of the order dated 3.8.2021 in Petition No. 260/MP/2020. Therefore, the Petitioner's prayer in the instant petition for allowing it to file a separate petition for claiming the overall security expenses and consequential IWC has become infructuous.

Capital Spares

78. 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

79. TANGEDCO has submitted that there is a need to split the capital cost including ACE based on the 2010 Sharing Regulations and the 2020 Sharing Regulations. TANGEDCO has further submitted that YTC details up to 31.12.2020 and from 1.1.2021 onwards are required to be split and the tariff components for the same need to be worked out accordingly. This will give correction allocation of the transmission charges as per the 2010 Sharing Regulations and the 2020 Sharing Regulations as provided under Regulation 43 of the 2014 Tariff Regulations and Regulation 57 of the 2019 Tariff Regulations. TANGEDCO has submitted the Petitioner may be directed to furnish the details in the above manner in all the truing up petitions.



80. In response, the Petitioner has submitted that instant petition is filed for truing up of transmission tariff of 2014-19 tariff period and determination of transmission tariff of the 2019-24 tariff period for Combined Asset. After truing up and determination of transmission tariff, sharing of transmission charges for 2014-19 period and 2019-24 period up to 31.10.2020 shall be done as per the 2010 Sharing Regulations and from 1.11.2020 onwards the same shall be shared under the 2020 Sharing Regulations. Tariff determination and Sharing of transmission charges are two independent activities and are not interlinked. The Petitioner has further submitted that after determination of tariff of the transmission assets by the Commission, the aspect of YTC bifurcation shall be taken care of at the time of billing.

81. We have considered the submissions of the Petitioner and TANGEDCO. We agree with the submissions of the Petitioner that tariff determination and sharing of transmission charges are two independent activities and they are not inter-linked. The tariff of the transmission assets is determined in accordance with the provisions of the relevant Tariff Regulations and after determination of tariff of the transmission assets by the Commission, sharing of the YTC amongst DICs is worked out in terms of provisions of the relevant Sharing Regulations and bills are raised accordingly. Therefore, the issue raised by TANGEDCO for splitting the capital cost of the transmission assets and tariff components on the basis of the 2010 Sharing Regulations regime and the 2020 Sharing Regulations regime is irrelevant.

82. 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 (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.

83. To summarise:

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

(₹ in lakh)

Asset-1					
Particulars	2004-05 Pro-rata for 5 months	2005-06	2006-07	2007-08	2008-09
AFC	259.07	624.11	683.69	663.15	648.61

(₹ in lakh)

Asset-2				
Particulars	2005-06 Pro-rata for 11 months	2006-07	2007-08	2008-09
AFC	207.46	237.89	243.97	239.28

- b) The revised AFC allowed in respect of the Combined Asset for 2009-14 tariff period are as follows:

(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
AFC	1026.20	1023.60	1012.31	1001.50	994.78

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



(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
AFC	950.94	935.74	919.39	902.86	694.62

d) The AFC allowed in respect of the Combined 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	516.43	512.53	508.81	508.92	513.11

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

85. This order disposes of Petition No 217/TT/2020 in terms of above discussions and findings.

sd/-

(P. K. Singh)
Member

sd/-

(Arun Goyal)
Member

sd/-

(I.S. Jha)
Member

sd/-

(P. K. Pujari)
Chairperson



Annexure-I

Asset	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
	Sub Station	5513.14	5513.14	5.28	291.09	291.09	291.09	291.09	97.88
	TOTAL	5513.14	5513.14		291.09	291.09	291.09	291.09	97.88
	Average Gross Block (₹ in lakh)				5513.14	5513.14	5513.14	5513.14	5513.14
	Weighted Average Rate of Depreciation (in %)				5.28	5.28	5.28	5.28	1.73

