

# CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No. 338/TT/2019

Coram:

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

Date of Order : 26.04.2021

**In the matter of:**

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

**And in the matter of:**

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

.....Petitioner

**Versus**

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



5. Electricity Department,  
Govt of Pondicherry,  
Pondicherry-605001
6. Eastern Power Distribution Company of Andhra Pradesh Ltd.  
APEPDCL, P&T Colony,  
Seethmmadhara, Vishakapatnam,  
Andhra Pradesh
7. Southern Power Distribution Company of Andhra Pradesh Ltd.,  
Srinivasasa Kalyana Mandapam Backside,  
Tiruchanoor Road, Kesavayana Gunta,  
Tirupati-517501,  
Chittoor District, Andhra Pradesh.
8. Central Power Distribution Company of Andhra Pradesh Ltd.,  
Corporate Office, Mint Compound,  
Hyderabad-500063,  
Telangana
9. Northern Power Distribution Company of Andhra Pradesh Ltd.,  
Opp. NIT Petrol Pump,  
Chaitanyapuri, Kazipet,  
Warangal-506004  
Telangana.
10. Bangalore Electricity Supply Company Ltd.,  
Corporate Office,  
K.R. Circle,  
Bangalore-560001  
Karnataka
11. Gulbarga Electricity Supply Company Ltd.,  
Station Main Road, Gulbarga,  
Karnataka
12. Hubli Electricity Supply Company Ltd.,  
Navanagar, PB Road,  
HUBLI, Karnataka
13. MESCOM Corporate Office,  
Paradigm Plaza, AB Shetty Circle,  
Mangalore-575001  
Karnataka
14. Chamundeswari Electricity Supply Corporation Ltd.,  
# 927, L J Avenue,  
Ground Floor, New Kantharaj Urs Road,  
Saraswatipuram, Mysore-570009,



Karnataka

15. Electricity Department,  
Government of Goa,  
Vidyuti Bhawan, Panaji,  
Goa-403001

16. Transmission Corporation of Telangana Ltd.,  
Vidhyut Sudha, Khairatabad,  
Hyderabad, 500082

17. Tamil Nadu Transmission Corporation,  
NPKRR Maaligai, 800, Anna Salai,  
Chennai-600002

....Respondent(s)

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

**For Respondent:** Shri B. Vinodh Kanna, Advocate, TANGEDCO  
Dr. R. Kathiravan, TANGEDCO

### **ORDER**

The present petition has been filed by the Petitioner, Power Grid Corporation of India Ltd., a deemed transmission licensee, for revision of tariff for the 2001-04, 2004-09 and 2009-14 tariff periods, truing up of the transmission tariff for the period 1.4.2014 to 31.3.2019 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and for determination of tariff for the period from 1.4.2019 to 31.3.2024 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) for 400 kV D/C Kaiga-Sirsa transmission line (hereinafter referred to as “the transmission asset”) in the Southern Region.

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 transmission tariff for 2009-14 block for the assets covered under this petition, as per para 8 above.*

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

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

*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 claim the contingent liability towards court cases as and when the same gets materialized.*

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

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

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

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

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

## **Background**

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



a) The implementation of the transmission asset for evacuation of central sector power from Kaiga Atomic Power Project, Stage-I was approved along with Kaiga Atomic Power Project in 1994 at an estimated cost of ₹2903 lakh including IDC of ₹332 lakh at 1<sup>st</sup> quarter of 1993 price level. The implementation of the transmission asset was entrusted to the Petitioner. Thereafter, Investment Approval for implementation of the transmission asset was accorded by the Board of Directors of the Petitioner Company in its meeting held on 23.12.1998 at an estimated cost of ₹5365 lakh including IDC of ₹1109 lakh. Approval of the Revised Cost Estimate (RCE) for the transmission asset was accorded by the Board of Directors of the Petitioner company in the 131<sup>st</sup> meeting held on 13.6.2002 at an estimated cost of ₹5753 lakh.

b) The entire scope of work under the Investment Approval is covered under the instant Petition. The transmission asset was declared under commercial operation with effect from 1.12.1999.

c) The transmission tariff for the transmission asset was approved by the Commission for the tariff period from 1.4.2001 to 31.3.2004 *vide* orders dated 30.6.2003 and 8.2.2008 in Petition No. 40/2002; for the tariff period from 1.4.2004 to 31.3.2009 *vide* orders dated 27.1.2006 and 16.4.2008 in Petition No. 136/2004; and for the tariff period from 1.4.2009 to 31.3.2014 *vide* order dated 1.4.2011 in Petition No. 206/2010. The tariff for the 2009-14 tariff period was trued up and tariff for the 2014-19 period was determined *vide* order dated 5.11.2015 in Petition No. 140/2014.

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



e) APTEL, *vide* judgement dated 22.1.2007 in Appeal No. 81/2005 and other related Appeals, and judgement dated 13.6.2007 in Appeal No. 139/2006 pertaining to generating stations of NTPC decided mainly on the following issues:

- i. Computation of Interest on Loan
- ii. Consequences of refinancing of loan
- iii. Depreciation as deemed repayment
- iv. Admissibility of depreciation up to 90% of the value of the assets
- v. Consideration of maintenance of spares for working capital
- vi. Depreciation of assets

f) The Commission and certain beneficiaries filed 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.

g) PGCIL based on the APTEL's judgments dated 22.1.2007 and dated 13.6.2007, sought revision of tariff of its transmission assets for the tariff periods 2001-04 and 2004-09 in Petition No. 121/2007. The Commission after taking into consideration the pending Appeals before the Hon'ble Supreme Court adjourned the matter sine die and directed to revive the same after the disposal of the Civil Appeals by the Hon'ble Supreme Court.

h) The Hon'ble Supreme Court dismissed the said Civil Appeals filed against the APTEL's said judgments *vide* its judgment dated 10.4.2018.

i) Consequent to the Hon'ble Supreme Court's judgment dated 10.4.2018 in NTPC matters, the 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 of the petitions for the period 2014-19 in respect of concerned transmission assets.



j) The instant petition was heard on 24.3.2021 and in view of APTEL's judgments dated 22.1.2007 and dated 13.6.2007 and the judgement of Hon'ble Supreme Court dated 10.4.2018, tariff of the transmission asset is being revised. The transmission tariff is being re-worked period-wise based on the Tariff Regulations applicable for the respective tariff periods with suitable assumptions at certain places wherever need be and they are indicated in the present order.

k) The capital cost of ₹5682.84 lakh for the transmission asset was approved by the Commission *vide* its orders dated 30.6.2003 and 8.2.2008 in Petition No. 40/2002 for 2001-04 tariff period. The capital cost of ₹5741.78 lakh for transmission asset was approved by the Commission *vide* its orders dated 27.1.2006 and 16.4.2008 in Petition No. 136/2004 for 2004-09 tariff period. The tariff from 1.4.2001 was worked out based on the admitted capital cost of ₹5682.84 and tariff from 1.4.2004 was worked out based on admitted capital cost of ₹5741.78 lakh. Accordingly, considering the admitted capital cost of ₹5741.78 lakh, tariff is being revised for the 2001-04, 2004-09, 2009-14 tariff periods in terms of the APTEL's judgements dated 22.1.2007 and dated 13.6.2007.

4. APTEL while dealing with the issue of computation of IOL in judgement dated 22.1.2007 observed that IOL for the period from 1.4.1998 to 31.3.2001 shall be computed only on normative loan repayment as per its judgement dated 14.11.2006 in Appeal No. 94 and Appeal No. 96 of 2005. APTEL in its judgement dated 14.11.2006 set aside the Commission's methodology of computation of loan on the actual repayment basis or normative repayment whichever is higher. The relevant portions of the judgement of 14.11.2006 is as follows:

*"12. We have heard the arguments of the Senior Counsel(s) of appellant and respondents. We notice that the appellant has not challenged the formula for computing the annual repayment amount as provided in Appeal No. 96 of 2005 & IA No.117 of 2006 in Appeal No. 94 of 2005 para-22 of the impugned order and has only challenged the provisions at para 23 specifying that the amount of annual repayment for calculation of interest on loan is chosen higher of the normative debt and actual debt.*

*13. As mentioned earlier the servicing of the capital (equity or debt) is financed by the recovery of interest on debt capital and through earning of return on equity capital.*



*The actual loan repayment has been normalized to 50% of the total capital by the formula in para 22 of the impugned order given in para 11 above. Once it has been decided and agreed that the financing plan would be based on normative debt-equity ratio of 50:50 and not the actual debt-equity ratio, the same normative basis should be adopted for recovery of cost of servicing the capital.*

14. *In the instant case since the normative debt-equity ratio of 50:50 has been adopted in the financing plan, the loan repayment should be computed based on normative debt. This is to ensure that whatever normative debt has been considered, tariff should ensure the recovery of the same normative debt and interest thereon.*
18. *In its Tariff Regulation of 2004 the Central Commission perhaps recognizing the aforesaid anomaly has dispensed with the practice of adopting higher of actual or normative repayment and has corrected the method of determination of quantum of debt repayment only on the basis of the normative debt with effect from 01.04.2004*
19. *In view of the above, the Central Commission is required to adopt normative debt repayment methodology for working out the interest on loan liability for the period 01.04.1998 to 31.03.2001.”*

In view of the above, the interest allowed for the 2001-04 and the 2004-09 periods is revised on the basis of the normative debt repayment methodology.

5. APTEL, in its judgement dated 13.6.2007 in Appeal No.139 of 2006 and others, held that additional capitalisation after the date of commercial operation should also be considered for computation of maintenance spares as under:

***“Analysis and Decision***

*We are not inclined to agree with the contention of the respondents that escalation of 6% will take care of the additional capitalization. Escalation is meant to factor inflation and is allowed as per CERC Regulations whether or not additional capitalization takes place. Question before us is that: can the historical cost be frozen with the Commissioning of the station. It is quite normal and prudent to ensure earliest operation of the plant without necessarily 100% completion of plants and works, of course not at the cost of safety of the plant. Adding some of the plants and works after the commercial operation will reduce interest during construction. If technically it is possible to delay some of the plants or works, it is only prudent to do so. For example, it is common to build redundancies in the plant at a little later stage. CERC’s own regulations rightly recognized additional capitalization. It is pertinent to set out excerpts pertaining to additional capitalization from CERC (Terms & Conditions of Tariff) Regulation, 2004 Clause 18 as below: -*

*“Additional capitalization (1) The following capital expenditure within the original scope of work actually incurred after the date of commercial operation and up to the cut off date may be admitted by the Commission, subject to prudence check:*

- (i) Deferred liabilities*
- (ii) Works deferred for execution*
- (iii) Procurement of initial capital spares in the original scope of work, subject to*





*ceiling specified in regulation 17.*

*(iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and*

*(v) On account of change in law.*

*Provided that original scope of work along with estimates of expenditure shall be submitted along with the application for provisional tariff.*

*Provided further that a list of the deferred liabilities and works deferred for execution shall be submitted along with the application for final tariff after the date of commercial operation of the generating station.”*

*It is clear from the abovementioned Clause 18 of the CERC Regulations that additional capitalization after the date of commercial operation is recognized as part of the capital expenditure. Historical cost does not literally mean that the cost on the date of the commercial operation. The term historical cost is used so as to distinguish it from ‘book value’ or ‘the replacement cost’. The cost of maintenance spares limited to 1% of the historical cost corresponds to the plant and equipment and installations which are required to be maintained. If the cost of additional equipment is not included in the historical cost, how spares for the additional equipment be procured for maintenance of the additional equipment. In this view of the matter, the CERC needs to examine afresh in the light of the aforesaid observations.”*

6. 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 additional capitalisation after the date of commercial operation. We observe that, in the instant petition, there has been ACE in 2001-04 but not in 2004-09, which has necessitated revision of Maintenance Spares.

7. As regards depreciation, APTEL in its judgement dated 13.6.2007 in Appeal No.139 of 2006 and batch 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. The relevant portion of the judgement is as under:

***“Analysis and Decision***

*In the orders of this Tribunal dated November 14, 2006 and January 24, 2007 it has been laid down that the computation of outstanding loan will be on normative basis only (instead of normative or actual whichever is higher). In view of this there is no question of any adjustment of the depreciation amount as deemed repayment of loan.*

*It is to be understood that the depreciation is an expense and not an item allowed for repayment of loan. If a corporation does not borrow, it would not mean that the corporation will not be allowed any depreciation. Depreciation is an expense it represents*



*a decline in the value of asset because of use, wear or obsolescence. The Accounting Principles Board of USA defines depreciation as under:-*

*“The cost of a productive facility is one of the costs of the service it renders during its useful economic life. Generally accepted accounting principles require that this cost be spread over the expected useful life of the facility in such a way as to allocate it as equitably as possible to the periods during which services are obtained from the use of the facility. This procedure is known as depreciation accounting, a system of accounting which aims to distribute the cost or other basic value of tangible capital assets, less salvage (if any), over the estimated useful life of the unit (which may be a group of assets) in a systematic and rational manner. It is a process of allocation, not of valuation”*

*It is well established that the depreciation is an expense and therefore, it cannot be deployed for deemed repayment of loan. In this view of the matter the CERC shall need to make a fresh computation of outstanding loan in the light of the aforesaid observations.”*

8. Accordingly, in view of the above directions of APTEL, the outstanding loan allowed for the transmission asset for the 2001-04 and the 2004-09 periods is revised in the instant order.

9. The revision of tariff allowed for 2001-04 and 2004-09 tariff periods necessitates the revision of tariff allowed for the 2009-14 period, which is also allowed in the instant order. The implementation of the directions of APTEL in case of the Petitioner has been kept pending waiting for the outcome of the Civil Appeals filed before the Hon'ble Supreme Court. Taking into consideration the facts of the case and keeping in view the interest of the consumers, we are of the view that the beneficiaries should not be burdened with the carrying cost for the difference in the tariff allowed earlier and that allowed in the instant order for the 2001-04, 2004-09 and 2009-14 tariff periods. Therefore, the Petitioner will neither claim nor pay any carrying cost from the beneficiaries for the difference, if any, in the tariff allowed earlier and that 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. TANGEDCO has submitted its objection to the reopening of the tariff of the 2001-04, 2004-09 and 2009-14 periods based on the APTEL's judgements stating that the Commission had only referred to an extract of the Hon'ble Supreme Court of India in the matter of U.P. Power Corporation Limited Vs. National Thermal Power Corporation Limited reported in (2009) 6 SCC 235 and not the entire judgement. The Commission may re-examine the whole issue after considering the entirety of the judgment of the Hon'ble Supreme Court and decide if the same is applicable to the facts of this case. TANGEDCO has submitted that the claim to increase the tariff is permissible only when the tariff is in force and not afterwards. TANGEDCO has further submitted that recovery of the arrears pertaining to two decades from the present customers is not tenable in law.

11. In response, the Petitioner has submitted that the objection was raised by the respondent in order dated 31.7.2020 in Petition No. 288/TT/2019 and order dated 5.3.2021 in Petition No. 290/TT/2020 and the Commission allowed the revision of tariff for 2001-04, 2004-09 and 2009-14.

12. We have considered the contentions of TANGEDCO and clarifications given by the Petitioner. The Commission, while considering this issue, had vide order dated 6.11.2019 in Petition No. 288/TT/2019, Petition No. 300/TT/2019, Petition No. 301/TT/2019 and Petition No. 305/TT/2019 held as under:

*"11. We have examined the above contentions of the parties. It is apparent from the record that the Central Commission and other beneficiaries filed Civil Appeal No. 5622 of 2007 and batch before the Hon'ble Supreme Court against the judgment dated 22.1.2007 in Appeal No. 81 of 2005 and other related appeals and judgment dated 13.6.2007 in Appeal No. 139 of 2006 of Appellate Tribunal for Electricity. In the meantime, the Petitioner filed a Petition No. 121 of 2007 in the year 2007 for extending the benefit of judgements dated 22.1.2007 and 13.6.2007 of the Appellate Tribunal in the case of appeals filed by NTPC, on the issue of (a) Computation of Interest on Loan, (b) Consequence of Refinancing of Loan, (c) Depreciation as Deemed Repayment, (d) Admissibility of Depreciation with*



specific reference to the interpretation of Tariff Regulations as propounded in Appellate Tribunal's Judgments. As the said appeals against the Appellate Tribunal's Judgments were then pending adjudication before Hon'ble Supreme Court, the Commission adjourned the proceedings sine die in Petition No. 121 of 2007 vide RoP dated 12.8.2008. The relevant portion of the ROP dated 12.8.2008 is extracted hereunder:-

*"4. Request made by the learned counsel was allowed by the Commission. The application was adjourned sine die. The applicant may get the application revived after decision of the Hon'ble Supreme Court in the appeals pending"*

*This was done for the reason that the regulations as interpreted by Appellate Tribunal were under challenge before the Hon'ble Supreme Court. The Hon'ble Supreme Court vide order dated 10.4.2018 dismissed Civil Appeal No. 5622 of 2007 and batch filed by the Commission and other beneficiaries. Thus, the Appellate Tribunal's Judgments attained finality. As the spirit of the regulations in question has authoritatively been interpreted in the Appellate Tribunal's Judgments, the Commission is duty bound to apply the regulations uniformly to all without any discrimination. Accordingly, on dismissal of the said appeals by the Hon'ble Supreme Court, the Commission disposed of Petition No. 121 of 2007 vide order dated 18.1.2019 permitting the Petitioner to submit their claims, wherever applicable, alongwith truing up petitions for the 2014-19 period.*

*"6. Considering the submissions of the learned counsel for the petitioner, we dispose of the present petition with the direction that the petitioner shall separately submit its claim in the light of the APTEL's judgments dated 22.1.2007 and 13.6.2007 alongwith the truing up petitions wherever applicable to be filed for the period 2014-19 in respect of concerned transmission assets."*

*It is well settled law that an order or judgment from which review and/or appeal is allowed but not preferred by the aggrieved party attains finality. The said principle cannot be applied to the instant petitions as during the pendency of Petition No.121 of 2007, the Petitioner was not in a position to take up other legal remedies available to it under the law. Thus, we do not agree with the contentions of learned counsel for BRPL and BSPHCL that the present petitions cannot be entertained as the final orders passed therein have attained finality. In our opinion, the present matter significantly differs with the settled law wherein uniform treatment based regulations as interpreted by higher Courts is required to be given effect to without any discrimination to meet the ends of justice. For these reasons, we reject the said contentions of BRPL and BSPHCL and hold that in the facts and circumstances of this case, the general law that an order or judgment from which review and/or appeal is allowed but not preferred by the aggrieved party attains finality is not applicable here."*

13. In view of the above, the contention of TANGEDCO is rejected.

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



Region. The Petitioner has served the Petition on the Respondents and notice of this Petition has been published in the newspaper in accordance with Section 64 of the Electricity Act, 2003. No comments/ objections have been received from the general public in response to the aforesaid notice published in the newspaper by the Petitioner. Tamil Nadu Generation and Distribution Corporation Ltd. (TANGEDCO), Respondent No. 4, has filed its reply *vide* affidavit dated 18.3.2021. TANGEDCO has raised issues regarding revision of tariff, GST and sharing of transmission tariff. The issues raised by TANGEDCO, and the clarifications given by the Petitioner are considered in the relevant portions of this order.

15. The hearing in this matter was held on 24.3.2021 through video conference and the order was reserved.

16. This order is issued considering the submissions made by the Petitioner in the Petition and affidavits dated 1.8.2019 and 31.7.2020 and reply filed by TANGEDCO *vide* affidavit dated 18.3.2021. During the course of hearing the petition on 24.3.2021, the representative of the Petitioner submitted that rejoinder filed by it to the reply of TANGEDCO in earlier cases before the Commission may also be considered for the present matter.

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



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

**2001-04 Period**

18. The Commission vide orders dated 30.6.2003 and 8.2.2008 in Petition No. 40/2002 had approved the following transmission charges for the transmission asset for the 2001-04 period:

(₹ in lakh)			
<b>Particulars</b>	<b>2001-02</b>	<b>2002-03</b>	<b>2003-04</b>
Depreciation	151.12	151.12	151.12
Interest on Loan	196.93	63.20	59.04
Return on Equity	398.83	398.83	398.83
Advance against Depreciation	114.73	0.00	0.00
Interest on Working Capital	25.81	21.5	21.99
O&M Expenses	61.58	65.27	69.19
<b>Total</b>	<b>949.00</b>	<b>699.91</b>	<b>700.16</b>

19. Further, the Commission vide its order dated 27.1.2006 in Petition No. 136/2004 had approved the impact of following additional capitalisation on Interest on Loan which was allowed to be recovered by the Petitioner from the respondents along with the tariff for the respective period as per order dated 27.1.2006 in Petition No. 136/2004:

(₹ in lakh)				
<b>Particulars</b>	<b>2001-02</b>	<b>2002-03</b>	<b>2003-04</b>	<b>Total</b>
Additional Capitalisation	5.60	19.22	45.58	<b>70.40</b>
Interest on Loan (IoL)	0.00	0.18	1.91	<b>2.09</b>
<b>Total</b>	<b>0.00</b>	<b>0.18</b>	<b>1.91</b>	<b>2.09</b>

20. The Petitioner has claimed the revised transmission charges for the transmission asset for the 2001-04 tariff period in the instant petition as under:

(₹ in lakh)			
<b>Particulars</b>	<b>2001-02</b>	<b>2002-03</b>	<b>2003-04</b>
Depreciation	151.12	151.12	151.12
Interest on Loan	194.26	62.82	60.22
Return on Equity	398.83	398.83	398.83
Advance against Depreciation	114.73	0	0
Interest on Working Capital	26.06	21.81	22.36
O&M Expenses	61.58	65.27	69.19
<b>Total</b>	<b>946.58</b>	<b>699.85</b>	<b>701.72</b>



21. We have considered the Petitioner's claim. The tariff is allowed for the We have

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

- a) Admitted capital cost of ₹5682.84 lakh for the transmission asset as on 1.4.2001.
- b) Weighted Average Rate of Interest on actual loan adopted from order dated 8.2.2008 in Petition No. 40/2002.
- c) Weighted Average Rate of Depreciation, Rate of Interest for Working Capital and O&M Expenses as per orders dated 30.6.2003 and 8.2.2008 in Petition No. 40/2002.

22. Additional Capital Expenditure (ACE) of ₹70.40 was incurred during the 2001-04 tariff period and as such maintenance spares is required to be revised for calculating IWC.

23. In view of the above, the revised transmission charges allowed for the transmission asset for the 2001-04 tariff period is as under:

Particulars	(₹ in lakh)		
	2001-02	2002-03	2003-04
Depreciation	151.12	151.12	151.12
Interest on Loan	196.25	62.33	58.15
Return on Equity	398.83	398.83	398.83
Advance against Depreciation	114.73	0.00	0.00
Interest on Working Capital	25.82	21.51	22.04
O&M Expenses	61.58	65.27	69.19
<b>Total</b>	<b>948.32</b>	<b>699.06</b>	<b>699.33</b>

24. The Annual Fixed Charges (AFC) allowed earlier for 2001-04 period *vide* orders dated 30.6.2003 and 8.2.2008 in Petition No. 40/2002, the revised AFC claimed in the instant petition and AFC allowed in the instant order is as under:

Particulars	(₹ in lakh)		
	2001-02	2002-03	2003-04
AFC approved <i>vide</i> orders dated 30.6.2003 and 8.2.2008 in Petition No. 40/2002	949.00	699.91	700.16



AFC claimed by the Petitioner in the instant petition	946.58	699.85	701.72
AFC allowed in the instant order	948.32	699.06	699.33

### **2004-09 Period**

25. The Commission vide orders dated 27.1.2006 and 16.4.2008 in Petition No. 136/2004 approved the following transmission charges for the transmission asset for the 2004-09 period:

(₹ in lakh)

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	152.62	152.62	152.62	152.62	152.62
Interest on Loan	44.80	31.92	19.48	7.82	1.16
Return on Equity	348.97	348.97	348.97	348.97	348.97
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	17.75	18.01	18.30	18.63	19.09
O&M Expenses	27.77	28.87	30.09	31.19	32.54
<b>Total</b>	<b>591.91</b>	<b>580.39</b>	<b>569.47</b>	<b>559.24</b>	<b>554.39</b>

26. The Petitioner has claimed the revised transmission charges for the transmission asset for the 2004-09 period in the instant petition as under:

(₹ in lakh)

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	152.62	152.62	152.62	152.62	152.62
Interest on Loan	47.52	39.47	31.42	23.37	15.32
Return on Equity	348.97	348.97	348.97	348.97	348.97
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	18.26	18.62	19.03	19.45	19.92
O&M Expenses	27.77	28.87	30.09	31.19	32.54
<b>Total</b>	<b>595.14</b>	<b>588.55</b>	<b>582.13</b>	<b>575.60</b>	<b>569.37</b>

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

- d) Admitted capital cost of ₹5741.78 lakh for the transmission asset as on 1.4.2004.
- e) Weighted Average Rate of Interest on actual loan adopted from orders dated 27.1.2006 and 16.4.2008 in Petition No. 136/2004.





- f) Weighted Average Rate of Depreciation, Rate of Interest for Working Capital and O&M Expenses as per order dated 27.1.2006 and 16.4.2008 in Petition No. 136/2004.

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

(₹ in lakh)					
Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	152.62	152.62	152.62	152.62	152.62
Interest on Loan	47.72	39.64	31.55	23.46	15.39
Return on Equity	348.97	348.97	348.97	348.97	348.97
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	17.96	18.31	18.70	19.10	19.55
O&M Expenses	27.77	28.87	30.09	31.19	32.54
<b>Total</b>	<b>595.05</b>	<b>588.41</b>	<b>581.93</b>	<b>575.34</b>	<b>569.07</b>

29. AFC allowed earlier for 2004-09 period *vide* orders dated 27.1.2006 and 16.4.2008 in Petition No. 136/2004, the revised AFC claimed in the instant petition and AFC allowed in the instant order is given below:

(₹ in lakh)					
Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
AFC approved <i>vide</i> orders dated 27.1.2006 and 16.4.2008 in Petition No. 136/2004	591.91	580.39	569.47	559.24	554.39
AFC claimed by the Petitioner in the instant petition	595.14	588.55	582.13	575.60	569.37
AFC allowed in the instant order	595.05	588.41	581.93	575.34	569.07

### **2009-14 Period**

30. The Commission *vide* order dated 1.4.2011 in Petition No. 206/2010 approved the tariff for the transmission asset for the 2009-14 period. The Commission *vide* order dated 5.11.2015 in Petition No. 140/TT/2014 trued up the transmission tariff allowed for the 2009-14 period which was earlier allowed *vide* order dated 1.4.2011 in Petition No. 206/2010 and the same is as follows:



(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	304.71	304.71	304.71	109.13	109.13
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	465.48	482.53	483.00	483.00	488.81
Interest on Working Capital	17.97	18.44	18.56	14.61	14.86
O&M Expenses	38.35	40.55	42.88	45.32	47.89
<b>Total</b>	<b>826.51</b>	<b>846.23</b>	<b>849.16</b>	<b>652.06</b>	<b>660.69</b>

31. The Petitioner has claimed the revised transmission charges for the transmission asset for the 2009-14 period in the instant petition as under:

(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	304.71	304.71	304.71	109.13	109.13
Interest on Loan	5.37	0.00	0.00	0.00	0.00
Return on Equity	465.48	482.53	483.00	483.00	488.81
Interest on Working Capital	18.08	18.44	18.56	14.61	14.86
O&M Expenses	38.35	40.55	42.88	45.32	47.89
<b>Total</b>	<b>832.00</b>	<b>846.23</b>	<b>849.15</b>	<b>652.06</b>	<b>660.69</b>

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

- Admitted capital cost of ₹5741.78 lakh as on 1.4.2009.
- Weighted Average Rate of Interest on actual loan derived/adopted from order dated 5.11.2015 in Petition No. 140/TT/2014.
- Weighted Average Rate of Depreciation as per order dated 5.11.2015 in Petition No. 140/TT/2014.
- There is no ACE during the period 2009-14.

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

(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	304.71	304.71	304.71	109.13	109.13
Interest on Loan	5.40	0.00	0.00	0.00	0.00
Return on Equity	465.48	482.53	483.00	483.00	488.81
Interest on Working Capital	18.08	18.44	18.56	14.61	14.86
O&M Expenses	38.35	40.55	42.88	45.32	47.89
<b>Total</b>	<b>832.02</b>	<b>846.23</b>	<b>849.15</b>	<b>652.06</b>	<b>660.69</b>



34. AFC allowed earlier for 2009-14 period *vide* order dated 1.4.2011 in Petition No. 206/2010 and subsequently trued up *vide* order dated 5.11.2015 in Petition No. 140/TT/2014, the revised AFC claimed in the instant petition and AFC allowed in the instant order is as follows:

(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
AFC approved <i>vide</i> order dated 01.4.2011 in Petition No. 206/2010 and subsequently <i>vide</i> order dated 5.11.2015 in Petition No. 140/TT/2014	826.51	846.23	849.16	652.06	660.69
AFC claimed by the Petitioner in the instant petition	832.00	846.23	849.15	652.06	660.69
AFC allowed in the instant order	832.02	846.23	849.15	652.06	660.69

#### Truing up of Annual Fixed Charges of the 2014-19 Tariff Period

35. The details of the transmission charges claimed by the Petitioner in respect of the transmission asset is as under:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	109.13	109.13	109.13	109.13	109.13
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	489.18	491.43	491.18	491.18	492.50
Interest on Working Capital	16.16	16.29	16.37	16.46	16.57
O&M Expenses	43.24	44.71	46.18	47.71	49.30
<b>Total</b>	<b>657.71</b>	<b>661.56</b>	<b>662.86</b>	<b>664.48</b>	<b>667.50</b>

36. The details of the Interest on Working Capital (IWC) claimed by the Petitioner in respect of the transmission asset are as under:

(₹ in lakh)

Particular	2014-15	2015-16	2016-17	2017-18	2018-19
O & M Expenses	3.60	3.73	3.85	3.98	4.11
Maintenance Spares	6.49	6.71	6.93	7.16	7.40
Receivables	109.62	110.26	110.48	110.75	111.25
<b>Total Working Capital</b>	<b>119.71</b>	<b>120.70</b>	<b>121.26</b>	<b>121.89</b>	<b>122.76</b>
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
<b>Interest on Working Capital</b>	<b>16.16</b>	<b>16.29</b>	<b>16.37</b>	<b>16.46</b>	<b>16.57</b>



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

37. The capital cost of the existing project has been calculated in accordance with Regulation 9(3) and Regulation 9(6) of 2014 Tariff Regulations.

38. The Commission *vide* order 5.11.2015 in Petition No. 140/TT/2014 had allowed capital cost as on 1.4.2014 of ₹5741.78 lakh and the same capital cost was allowed as on 31.3.2019. The Petitioner has not claimed any additional capitalisation or de-capitalization of assets and accordingly claimed the same capital cost of ₹5741.78 lakh. The details of the capital cost as on 1.4.2014 and on 31.3.2019 considered for the transmission asset is as under:

(₹ in lakh)		
Admitted Capital Cost as on 1.4.2014	ACE during 2014-19	Admitted Capital Cost as on 31.3.2019
5741.78	0.00	5741.78

### **Debt-Equity ratio**

39. The debt-equity ratio has been allowed in accordance with Regulation 19(3) of the 2014 Tariff Regulations. As per Regulation 19(3) of the 2014 Tariff Regulations, the debt-equity ratio allowed by the Commission for determination of tariff for the period ending on 31.3.2014 shall be considered. Accordingly, the debt-equity ratio considered for the purpose of determination of tariff of the 2014-19 tariff period, has been considered for the purpose of truing up of the tariff of the transmission asset for the 2014-19 tariff period and the same has been summarised as under:

Particulars	Capital Cost as on 1.4.2014 (₹ in lakh)	(%)	Total Capital Cost as on 31.3.2019 (₹ in lakh)	(%)
Debt	3249.12	56.59	3249.12	56.99
Equity	2492.66	43.41	2492.66	43.41
<b>Total</b>	<b>5741.78</b>	<b>100.00</b>	<b>5741.78</b>	<b>100.00</b>



## Depreciation

40. The transmission asset has completed 12 years of life as on 31.3.2012. The remaining depreciable value of ₹2510.00 lakh as on 31.3.2012 has been spread across the balance useful life of 23 years in accordance with Regulation 27(5) of the 2014 Tariff Regulations. Accordingly, depreciation allowed is as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	5741.78	5741.78	5741.78	5741.78	5741.78
ACE	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	5741.78	5741.78	5741.78	5741.78	5741.78
Average Gross Block	5741.78	5741.78	5741.78	5741.78	5741.78
Weighted average rate of Depreciation (WAROD) (%)	Spreading				
Balance useful life of the asset (Year)	21	20	19	18	17
Elapsed life of the asset (Year)	14	15	16	17	18
Depreciable Value	5167.60	5167.60	5167.60	5167.60	5167.60
<b>Depreciation during the year</b>	<b>109.13</b>	<b>109.13</b>	<b>109.13</b>	<b>109.13</b>	<b>109.13</b>
Aggregate Cumulative Depreciation	2984.99	3094.12	3203.25	3312.38	3421.51
Remaining Depreciable Value	2182.61	2073.48	1964.35	1855.22	1746.09

41. The details of depreciation approved *vide* order dated 5.11.2015 in Petition No. 140/TT/2014, depreciation claimed by the Petitioner in the instant petition and the true up depreciation in this order is shown in the table below:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Approved <i>vide</i> order dated 5.11.2015 in Petition No. 140/TT/2014	109.13	109.13	109.13	109.13	109.13
Claimed by the Petitioner in the instant petition	109.13	109.13	109.13	109.13	109.13
Allowed after true-up in this order	109.13	109.13	109.13	109.13	109.13

## Interest on Loan (IoL)

42. The normative loan has been repaid and the IoL claimed by the Petitioner is nil.



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

43. The Petitioner is entitled for Return on Equity for the transmission asset in terms of Regulations 24 and 25 of the 2014 Tariff Regulations. The Petitioner has submitted that it is liable to pay income tax at MAT rates and has claimed following effective tax rates for the 2014-19 tariff period:

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

44. We have considered the submissions of the Petitioner. The Commission, in 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 have been mentioned in the table below. The relevant portion of the order dated 27.4.2020 is as under:

*“26. We are conscious that the entities covered under MAT regime are paying Income Tax as per MAT rate notified for respective financial year under IT Act, 1961, which is levied on the book profit of the entity computed as per the Section 115JB of the IT Act, 1961. The Section 115JB(2) defines book profit as net profit in the statement of Profit & Loss prepared in accordance with Schedule-III of the Companies Act, 2013, subject to some additions and deductions as mentioned in the IT Act, 1961. Since the Petitioner has been paying income tax on income computed under Section 115JB of the IT Act, 1961 as per the MAT rates of the respective financial year, the notified MAT rate for respective financial year shall be considered as effective tax rate for the purpose of grossing up of RoE for truing up of the tariff of the 2014-19 tariff period in terms of the provisions of the 2014 Tariff Regulations. Interest imposed on any additional income tax demand as per the Assessment Order of the Income Tax authorities shall be considered on actual payment. However, penalty (for default on the part of the Assessee) if any imposed shall not be taken into account for the purpose of grossing up of rate of return on equity. 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 transmission customers / DICs as the case may be on year to year basis.*

*27. Accordingly, following effective tax rates based on notified MAT rates are considered for the purpose of grossing up of rate of return on equity:*

<b>Year</b>	<b>Notified MAT rates (inclusive of surcharge &amp; cess) (in %)</b>	<b>Effective tax (in %)</b>
2014-15	20.961	20.961
2015-16	21.342	21.342



2016-17	21.342	21.342
2017-18	21.342	21.342
2018-19	21.549	21.549

”

45. The same MAT rates as above are considered for the purpose of grossing up of rate of RoE for truing up of the tariff of the 2014-19 tariff period in terms of the provisions of the 2014 Tariff Regulations which are as under:

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

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

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	2492.66	2492.66	2492.66	2492.66	2492.66
Additions due to ACE	0.00	0.00	0.00	0.00	0.00
Closing Equity	2492.66	2492.66	2492.66	2492.66	2492.66
Average Equity	2492.66	2492.66	2492.66	2492.66	2492.66
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50
MAT Rate for respective year (%)	20.961	21.342	21.342	21.342	21.549
Rate of Return on Equity (%)	19.610	19.705	19.705	19.705	19.758
<b>Return on Equity</b>	<b>488.81</b>	<b>491.18</b>	<b>491.18</b>	<b>491.18</b>	<b>492.50</b>

47. The details of RoE approved *vide* order dated 5.11.2015 in Petition No. 140/TT/2014, RoE claimed by the Petitioner in the instant petition and RoE trued up in this order is shown in the table as under:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Approved <i>vide</i> order dated 5.11.2015 in Petition No. 140/TT/2014	488.81	488.81	488.81	488.81	488.81



Claimed by the Petitioner in the instant petition	489.18	491.43	491.18	491.18	492.50
Allowed after true-up in this order	488.81	491.18	491.18	491.18	492.50

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

48. The O&M Expenses claimed by the Petitioner are as under:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Transmission Line</b>					
D/C Twin/Triple Conductor (km)	61.163	61.163	61.163	61.163	61.163
Norms (₹ lakh/km)	0.707	0.731	0.755	0.78	0.806
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>43.24</b>	<b>44.71</b>	<b>46.18</b>	<b>47.71</b>	<b>49.30</b>

49. Regulation 29(3) of the 2014 Tariff Regulations specifies the norms for O&M Expenses for the transmission system. The norms specified in respect of the elements covered in the transmission asset are as under:

Element	Norms for 2014-15	Norms for 2015-16	Norms for 2016-17	Norms for 2017-18	Norms for 2018-19
D/C Twin/Triple Conductor	₹0.707 lakh/km	₹0.731 lakh/km	₹0.755 lakh/km	₹0.780 lakh/km	₹0.806 lakh/km

50. We have considered the submissions of the Petitioner. The trued up O&M Expenses allowed under Regulation 29(3) of the 2014 Tariff Regulations are as under:

Details	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Transmission Line</b>					
D/C Twin/Triple Conductor (km)	61.163	61.163	61.163	61.163	61.163
Norms (₹ lakh/km)	0.707	0.731	0.755	0.78	0.806
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>43.24</b>	<b>44.71</b>	<b>46.18</b>	<b>47.71</b>	<b>49.30</b>

51. The details of O&M Expenses approved *vide* earlier order, O&M Expenses claimed by the Petitioner in the instant petition and O&M Expenses trued up in this order is shown in the table below:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Approved <i>vide</i> order dated 5.11.2015 in Petition No. 140/TT/2014	43.24	44.71	46.18	47.71	49.30
Claimed by the Petitioner in the instant petition	43.24	44.71	46.18	47.71	49.30





Allowed after true-up in this order	43.24	44.71	46.18	47.71	49.30
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### **Interest on Working Capital (IWC)**

52. The IWC has been worked out as per the methodology provided in Regulation 28 of the 2014 Tariff Regulations and is allowed for the transmission asset as under:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Working Capital Elements</b>					
O&M Expenses (O&M Expenses for 1 month)	3.60	3.73	3.85	3.98	4.11
Maintenance Spares (15% of O&M Expenses)	6.49	6.71	6.93	7.16	7.39
Receivables (Equivalent to 2 months of annual fixed cost)	109.56	110.22	110.48	110.74	111.25
<b>Total Working Capital</b>	<b>119.65</b>	<b>120.65</b>	<b>121.25</b>	<b>121.88</b>	<b>122.75</b>
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
<b>Interest of Working Capital</b>	<b>16.15</b>	<b>16.29</b>	<b>16.37</b>	<b>16.45</b>	<b>16.57</b>

53. The details of IWC approved *vide* order dated 5.11.2015 in Petition No. 140/TT/2014, IWC claimed by the Petitioner in the instant petition and IWC trued up in this order is shown in the table below:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Approved <i>vide</i> order dated 5.11.2015 in Petition No. 140/TT/2014	16.15	16.23	16.31	16.40	16.49
Claimed by the Petitioner in the instant petition	16.16	16.29	16.37	16.46	16.57
Allowed after true-up in this order	16.15	16.29	16.37	16.45	16.57

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

54. The trued up annual fixed charges for the transmission asset for the tariff period 2014-19 are summarised as under:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	109.13	109.13	109.13	109.13	109.13
Interest on Loan	0.00	0.00	0.00	0.00	0.00



Return on Equity	488.81	491.18	491.18	491.18	492.50
Interest on Working Capital	16.15	16.29	16.37	16.45	16.57
O & M Expenses	43.24	44.71	46.18	47.71	49.30
<b>Total</b>	<b>657.34</b>	<b>661.31</b>	<b>662.86</b>	<b>664.47</b>	<b>667.50</b>

55. Accordingly, the comparison between Annual Transmission Charges as approved vide order dated 5.11.2015 in Petition No. 140/TT/2014, as claimed by the Petitioner in the instant petition and as approved after truing up in this order is shown in the table below:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 5.11.2015 in Petition No. 140/TT/2014	657.33	658.88	660.43	662.05	663.73
Claimed by the Petitioner in the instant petition	657.71	661.56	662.86	664.48	667.50
Allowed after true-up in this order	657.34	661.31	662.86	664.47	667.50

56. The variation in annual transmission charges approved after truing up in this petition and as approved earlier for the transmission asset is mainly due to change in RoE.

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

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

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	109.13	109.13	109.13	109.13	109.13
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	492.50	492.50	492.50	492.50	492.50
Interest on Working Capital	11.52	11.63	11.72	11.81	11.87
O&M Expenses	56.83	58.73	60.69	62.71	64.79
<b>Total</b>	<b>669.98</b>	<b>671.99</b>	<b>674.04</b>	<b>676.14</b>	<b>678.29</b>

58. The Petitioner has claimed the following IWC for the transmission assets for the 2019-24 tariff period:



(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	4.74	4.89	5.06	5.23	5.40
Maintenance Spares	8.52	8.81	9.10	9.41	9.72
Receivables	82.38	82.85	83.10	83.36	83.40
Total Working Capital	95.64	96.55	97.26	98.00	98.52
Rate of Interest (%)	12.05	12.05	12.05	12.05	12.05
<b>Interest on Working Capital</b>	<b>11.52</b>	<b>11.63</b>	<b>11.72</b>	<b>11.81</b>	<b>11.87</b>

## **Capital Cost**

59. Regulation 19 of the 2019 Tariff Regulations provide as under:

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

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

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



*(o) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.*

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

*(a) Capital cost admitted by the Commission prior to 1.4.2019 duly trued up by excluding liability, if any, as on 1.4.2019;*

*(b) Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;*

*(c) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*

*(d) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*

*(e) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal up to the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and*

*(f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.”*

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

*(a) cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and*

*(b) cost of the developer's 10% contribution towards Rajiv Gandhi Grameen Vidutikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area.*

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

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

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

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

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

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

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



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

60. The Petitioner has claimed capital cost of ₹5741.78 lakh for the transmission asset which is the same as worked out above. Accordingly, capital cost as on 1.4.2019 of ₹5741.78 lakh has been considered for determination of tariff in accordance with Regulation 19 of the 2019 Tariff Regulations.

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

61. The Petitioner has not claimed any ACE during the period 2019-24.

62. Accordingly, the capital cost as on 1.4.2019 and as on 31.3.2024 considered for the tariff determination of the 2019-24 tariff period for the transmission asset is as under:

(₹ in lakh)		
Capital Cost as on 1.4.2019	ACE during the 2019-24	Capital Cost as on 31.3.2024
5741.78	0.00	5741.78

### **Debt-Equity ratio**

63. Regulation 18 of the 2019 Tariff Regulations provides as under:

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

*Provided that:*

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

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



utilised for meeting the capital expenditure of the generating station or the transmission system.

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

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

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

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

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

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

64. The Debt-Equity considered for the purpose of computation of tariff for the 2019-24 tariff period is as under:

Particulars	Capital Cost as on 1.4.2019 (₹ in lakh)	%	Capital Cost as on 31.3.2024 (₹ in lakh)	%
Debt	3249.12	56.59	3249.12	56.59
Equity	2492.66	43.41	2492.66	43.41
<b>Total</b>	<b>5741.78</b>	<b>100.00</b>		<b>100.00</b>

### Depreciation

65. Regulations 33(1), (2) and (5) of the 2019 Tariff Regulations provide as under:



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

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

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

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

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

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

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

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

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

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

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

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

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



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

66. As transmission asset has completed 12 years of useful life as on 31.3.2012. The remaining depreciable value is spread over the balance useful life of the transmission asset in the 2019-24 period as prescribed in Regulation 33(5) of the 2019 Tariff Regulations. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation up to 31.3.2019. The depreciation allowed is as under:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	5741.78	5741.78	5741.78	5741.78	5741.78
Addition during the year 2019-24 due to projected ACE	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	5741.78	5741.78	5741.78	5741.78	5741.78
Average Gross Block	5741.78	5741.78	5741.78	5741.78	5741.78
Weighted average rate of Depreciation (WAROD) (%)	Spreading				
Balance useful life at the beginning of the year	16	15	14	13	12
Elapsed Life of the asset	19	20	21	22	23
Depreciable Value	5167.60	5167.60	5167.60	5167.60	5167.60
<b>Depreciation during the year</b>	<b>109.13</b>	<b>109.13</b>	<b>109.13</b>	<b>109.13</b>	<b>109.13</b>
Cumulative Depreciation	3530.64	3639.77	3748.90	3858.03	3967.16
Remaining Depreciable Value	1636.96	1527.83	1418.70	1309.57	1200.44

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

67. The normative loan has been repaid and IoL claimed by the petitioner is nil.

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

68. Regulation 30 and Regulation 31 of the 2019 Tariff Regulations specify as under:





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

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

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

Provided further that:

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

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

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

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

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

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

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

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



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

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

**Illustration-**

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

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

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

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

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

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

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

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

69. Accordingly, the MAT rate applicable in 2019-20 has been considered for the purpose of RoE, which shall be trued up with actual tax rate in accordance with Regulation 31(3) of the 2019 Tariff Regulations. RoE allowed for the transmission asset is as under:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	2492.66	2492.66	2492.66	2492.66	2492.66
Additions due to ACE	0.00	0.00	0.00	0.00	0.00
Closing Equity	2492.66	2492.66	2492.66	2492.66	2492.66



Average Equity	2492.66	2492.66	2492.66	2492.66	2492.66
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (%)	18.782	18.782	18.782	18.782	18.782
<b>Return on Equity</b>	<b>468.17</b>	<b>468.17</b>	<b>468.17</b>	<b>468.17</b>	<b>468.17</b>

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

70. The O&M expenses claimed by the Petitioner for the various elements included in the transmission asset for the 2019-24 period are as under:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Transmission Line</b>					
D/C Twin/Triple Conductor (km)	61.163	61.163	61.163	61.163	61.163
Norms (₹ lakh/km)	0.881	0.912	0.944	0.977	1.011
O&M for PLCC (2% of ₹147.52)	2.95	2.95	2.95	2.95	2.95
<b>Total O&amp;M expenses</b>	<b>56.83</b>	<b>58.73</b>	<b>60.69</b>	<b>62.71</b>	<b>64.79</b>

71. The norms specified under Regulation 35(3)(a) of the 2019 Tariff Regulations provides under:

*“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
<b>Norms for sub-station Bays (₹ Lakh per bay)</b>					
765 kV	45.01	46.60	48.23	49.93	51.68
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84
132 kV and below	16.08	16.64	17.23	17.83	18.46
<b>Norms for Transformers (₹ Lakh per MVA)</b>					
765 kV	0.491	0.508	0.526	0.545	0.564
400 kV	0.358	0.371	0.384	0.398	0.411
220 kV	0.245	0.254	0.263	0.272	0.282



132 kV and below	0.245	0.254	0.263	0.272	0.282
<b>Norms for AC and HVDC lines (₹ Lakh per km)</b>					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-conductors)	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773
<b>Norms for HVDC stations</b>					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	834	864	894	925	958
Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)	1,666	1,725	1,785	1,848	1,913
500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)	2,252	2,331	2,413	2,498	2,586
±500 kV Talcher- Kolar HVDC bipole scheme	2,468	2,555	2,645	2,738	2,834



(Rs Lakh) (2000 MW)					
±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 year*

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

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



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

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

72. We have considered the submission 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. The relevant portions of the order dated 24.1.2021 in Petition No. 126/TT/2020 are extracted hereunder:

*“103. Thus, although PLCC equipment is a communication system, it has been considered as a part of sub-station, as it is used both for protection and communication. Therefore, we are of the considered view that rightly, it was not considered for separate O&M Expenses while framing norms of O&M for 2019-24 tariff period. While specifying norms for bays and transformers, O&M Expenses for PLCC have been included within norms for O&M Expenses for sub-station. Norms of O&M Expenses @2% of the capital cost in terms of Regulation 35(4) of the 2019 Tariff Regulations have been specified for communication system such as PMU, RMU, OPGW etc. and not for PLCC equipment.”*

*“105. In our view, granting of O&M Expenses for PLCC equipment @2% of its capital cost under Regulation 35(4) of the 2014 Tariff Regulations under the communication system head would tantamount to granting O&M Expenses twice for PLCC equipment as PLCC equipment has already been considered as part of the sub-station. Therefore, the Petitioner's prayer for grant of O&M Expenses for the PLCC equipment @2% of its capital cost under Regulation 35(4) of the 2014 Tariff Regulations is rejected.*

*106. The principle adopted in this petition that PLCC is part of sub-station and accordingly no separate O&M Expenses is admissible for PLCC equipment in the 2019-24 tariff period*



under Regulation 35(4) of the 2019 Tariff Regulations shall be applicable in case of all petitions where similar claim is made by the Petitioner. As already mentioned, the Commission, however, on the basis of the claim made by the Petitioner has inadvertently allowed O&M Expenses for PLCC equipment @2% of its original project cost, which is applicable for other “communication system”, for 2019-24 period in 31 petitions given in Annexure-3 of this order. Therefore, the decision in this order shall also be applicable to all the petitions given in Annexure-3. Therefore, PGCIL is directed to bring this decision to the notice of all the stakeholders in the 31 petitions given in Annexure-3 and also make revised claim of O&M Expenses for PLCC as part of the sub-station at the time of truing up of the tariff allowed for 2019-24 period in respective petitions.”

Therefore, the Petitioner’s claim for separate O&M Expenses for PLCC @2% is not allowed.

73. We have considered the submissions of the petitioner. The O&M expenses has been worked out as per the norms specified in the 2019 Tariff Regulations and the same is as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Transmission Line (400 kV Kaiga-Sirsi Transmission line)</b>					
D/C Twin/Triple Conductor	61.163	61.163	61.163	61.163	61.163
Norms (₹ lakh/km)	0.881	0.912	0.944	0.977	1.011
<b>Total O&amp;M expense (₹ in lakh)</b>	<b>53.88</b>	<b>55.78</b>	<b>57.74</b>	<b>59.76</b>	<b>61.84</b>

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

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

#### **“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;”*

75. The Petitioner has submitted that it has computed IWC for the 2019-24 tariff period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of IWC as 12.05%.

76. The IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The rate of interest is considered as 12.05% (SBI 1 year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20, whereas rate of interest for 2020-21 onwards has been considered as 11.25% (SBI 1-year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points). The components of the working capital and interest thereon allowed are as under:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Working Capital Elements</b>					
O&M Expenses (O&M Expenses for 1 month)	4.49	4.65	4.81	4.98	5.15
Maintenance Spares (15% of O&M Expenses)	8.08	8.37	8.66	8.96	9.28
Receivables (Equivalent to 45 days of annual transmission charges)	78.96	79.33	79.58	79.84	79.89
<b>Total Working Capital</b>	<b>91.53</b>	<b>92.35</b>	<b>93.06</b>	<b>93.79</b>	<b>94.32</b>
Rate of Interest (%)	12.05	11.25	11.25	11.25	11.25
<b>Interest on Working Capital</b>	<b>11.03</b>	<b>10.39</b>	<b>10.47</b>	<b>10.55</b>	<b>10.61</b>





### **Annual Fixed Charges of the 2019-24 Tariff Period**

77. The transmission charges allowed for the transmission asset for the 2019-24 tariff period are as under:

	(₹ in lakh)				
<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Depreciation	109.13	109.13	109.13	109.13	109.13
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	468.17	468.17	468.17	468.17	468.17
Interest on Working Capital	11.03	10.39	10.47	10.55	10.61
O & M Expenses	53.88	55.78	57.74	59.76	61.84
<b>Total</b>	<b>642.22</b>	<b>643.47</b>	<b>645.51</b>	<b>647.61</b>	<b>649.75</b>

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

78. 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**

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

### **Security Expenses**

80. The Petitioner has submitted that security expenses for the transmission asset are not claimed in the instant petition and it would file a separate petition for claiming the overall security expenses and the consequential IWC. The Petitioner has requested to consider the actual security expenses incurred during 2018-19 for claiming estimated security expenses for 2019-20 which shall be subject to true up at the end of the year



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

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

### **Goods and Services Tax**

82. 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 & 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.

83. TANGEDCO has submitted that as per the provisions of GST Act, the transmission charges are exempted from the levy of GST and even if GST is levied in future, the same should not be allowed retrospectively. TANGEDCO has further



submitted that the Hon'ble High Court of Gujarat in its judgement dated 19.12.2018 in the Special Civil Appeal No. 5343 of 2018 quashed the clarification with regard to levy of GST issued in para 4 (1) of the impugned Circular No.34/8/2018-GST dated 1.3.2018 by the Government of India as ultra vires the provisions of the GST Act as well as the notifications issued thereunder and made the rule absolute. TANGEDCO has submitted that the Commission may direct the Petitioner to restrain from including the paragraph related to GST in all the Petitions.

84. In response, the Petitioner has submitted that the transmission charges claimed in the instant Petition are exclusive of GST and if in future, the GST is levied on the transmission charges, the same shall be charged and additionally billed by the Petitioner. The Petitioner has submitted that if any additional taxes are to be paid on account of demand from Government of India/ Statutory Authorities, the same may be allowed to be recovered from the beneficiaries.

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

### **Capital Spares**

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

### **Sharing of Transmission Charges**

87. TANGEDCO has submitted that the trued-up transmission charges for the tariff period 2014-2019 has to be shared among the beneficiaries as per the Sharing Regulations, 2010. TANGEDCO has further submitted that new Sharing Regulations,



2020 has been notified on 4.5.2020 and it came into effect on 1.11.2020. Therefore, TANGEDCO has prayed that yearly transmission charges from March 2019 to 31.10.2020 have to be shared as per the existing 2010 Sharing Regulations and from November 2020 as per the new Sharing Regulations 2020. In response, the Petitioner has submitted that after the 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 2010 Sharing Regulations and thereafter from 1.11.2020 onwards shall be done as per the new Sharing Regulations, 2020. As regards the issue of bifurcation of yearly transmission charges raised by TANGEDCO, CTU shall take care of the same at the time of billing after tariff determination is done by the Commission.

88. We have considered the submissions of the Petitioner and TANGEDCO. The billing, collection and disbursement of the transmission charges approved shall be governed by the provisions of the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010, or the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020, as applicable, as provided in Regulation 43 of 2014 Tariff Regulations for the 2014-19 tariff period and Regulation 57 of the 2019 Tariff Regulations for the 2019-24 tariff period.

### **Contingent Liability**

89. The Petitioner has submitted that ₹112.00 lakh has been provisioned for the transmission asset for the contingent liability towards court cases. The date of incurring such liability is uncertain and, therefore, the Petitioner has not been claimed it as ACE during the 2019-24 tariff period and submitted to allow it as and when this liability is materialized.



90. We have considered the submission of the Petitioner. We are of the view the contingent liability, if any, shall be dealt with at the time of truing up of the of the transmission charges for the 2019-24 period in accordance with the provisions of the 2019 Tariff Regulations.

91. To summarise:

(a) The revised Annual Fixed Charges allowed for the transmission asset as per the APTEL's judgements are :

(₹ in lakh)							
2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
948.32	699.06	699.33	595.05	588.41	581.93	575.34	569.07

(b) The consequential revision of Annual Fixed Charges allowed for the transmission asset for the 2009-14 tariff period are:

(₹ in lakh)					
Particulars	2009-10	2010-11	2012-13	2013-14	2014-15
Annual Fixed Charges	832.02	846.23	849.15	652.06	660.69

(c) The trued-up Annual Fixed Charges allowed for the transmission asset for the 2014-19 tariff period are:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Annual Fixed Charges	657.34	661.31	662.86	664.47	667.50

(d) The Annual Fixed Charges allowed for the transmission asset for the 2019-24 tariff period in this order are:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Fixed Charges	642.22	643.47	645.51	647.61	649.75



92. This order disposes of Petition No. 338/TT/2019.

**sd/-**  
**(Pravas Kumar Singh)**  
**Member**

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

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

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

