CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Review Petition No. 4/RP/2020
in Petition No. 24/TT/2018

Coram:

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

Date of Order : 03 .08.2020

In the matter of:

Review petition under Section 94(1)(f) of the Electricity Act, 2003 read with Regulation 103 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999, seeking review of order dated 12.6.2019 in Petition No. 24/TT/2018.

And in the matter of:

Karnataka Power Transmission Corporation Limited
Kaveri Bhavan,
Kempegowda Road,
Bengaluru-560 009 **…. Review Petitioner**

Vs

1. Transmission Corporation of Andhra Pradesh Limited (APTRANSCO),
   6th Floor, A Block, Vidyut Soudha,
   Khairatabad,
   Hyderabad-500082.

2. Transmission Corporation of Telangana Limited (TSTRANSCO),
   6th Floor, A Block, Vidyut Soudha,
   Khairatabad,
   Hyderabad-500082.

3. Tamil Nadu Transmission Corporation Limited (TANTRANSCO),
   No.144, Anna Salai,
   Chennai-600002.

4. Kerala State Electricity Board,
   Vidyuthi Bhavanam, Pattom,
   Thiruvananthapuram-695004

5. Electricity Department,
   Government of Goa,

Vidyuth Bhavan, Panaji,
Goa-403 001. ….**Respondents**

For Petitioner : Shri Sriranga Subanna Advocate, PGCIL
Shri Sumana Nagananda Advocate, PGCIL

For Respondents : None

ORDER

This Review Petition is filed by Karnataka Power Transmission Corporation Limited (hereinafter referred to as "KPTCL") seeking review and modification of the order dated 12.6.2019 in Petition No. 24/TT/2018. In the said petition, KPTCL had sought approval of tariff of the following non-ISTS transmission lines carrying ISTS power:

1) 220 kV S/C Line from Ambewadi-Ponda,

2) 220 kV S/C Line from Ambewadi-Xyldom,

3) 220 kV S/C Line from Sedam-Tandur,

4) 220 kV S/C Line from Allipura-Ragalapadu,

5) 220 kV S/C Line from Yerandanahalli-Hosur,

6) 220 kV S/C Line from Kadakola-Kaniyampet and

7) 110 kV S/C Line from Konaje-Manjeshwar

for the 2014-19 tariff period in accordance with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as "2014 Tariff Regulations") and for inclusion in computation of Point of Connection charges.

Background

2. The Commission vide order dated 14.3.2012 in Petition No.15/SM/2012 directed the owners and the developers of the non-ISTS transmission lines connecting two States to file appropriate application for determination of tariff as per the tariff regulations and for inclusion in the computation of PoC charges under the Central Electricity Regulatory Commission (Sharing of inter-State Transmission Charges and Losses) Regulations, 2010 ("2010 Sharing Regulations"). The relevant portion of the order dated 14.3.2012 is extracted hereunder:

> *"5. It has come to the notice of the Central Commission that the some of the owners/developers of the inter-State transmission lines of 132 kV and above in North Eastern Region and 220 kV and above in Northern, Eastern, Western and Southern regions as mentioned in the Annexure to this order have approached the Implementing Agency for including their transmission assets in computation of Point of Connection transmission charges and losses under the Central Electricity Regulatory Commission (Sharing of inter- State Transmission Charges and Losses) Regulations, 2010 (hereinafter "Sharing Regulations').*
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> *6. As a first step towards inclusion of non-ISTS lines in the PoC transmission charges, the Commission proposes to include the transmission lines connecting two States, for computation of PoC transmission charges and losses. However, for the disbursement of transmission charges, tariff for such assets needs to be approved by the Commission in accordance with the provisions of Sharing Regulations. Accordingly, we direct the owners of these inter-State lines to file appropriate application before the Commission for determination of tariff for facilitating disbursement.*
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> *7. We direct the respondents to ensure that the tariff petition for determination of tariff is filed by the developers/owners of the transmission line or by State Transmission Utilities where the transmission lines are owned by them in accordance with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009, by 20.4.2012."*

3. Accordingly, KPTCL filed Petition No.225/TT/2013 claiming tariff for the 2011-14 period in respect of 8 non-ISTS transmission lines connecting Karnataka and neighbouring States, which are owned by it. However, Commission, vide order dated 28.1.2016, allowed tariff for the 2011-14 period for only 7 transmission lines as KPTCL was not able to produce the SRPC certificate to the effect that the transmission lines were inter-State in nature.

4. Subsequently, KPTCL filed Petition No.24/TT/2018 claiming tariff for the 2014-19 tariff period for the following 7 natural ISTS lines, which are connecting Karnataka and other neighbouring States, owned by it.

Assets		COD
Asset-1	220 kV S/C Line from Ambewadi-Ponda	15.3.1992
Asset-2	220 kV S/C Line from Ambewadi-Xyldom	15.3.1992
Asset-3	220 kV S/C Line from Sedam-Tandur	1984
Asset-4	220 kV S/C Line from Alipura-Ragalapadu	25.9.1975
Asset-5	220 kV S/C Line from Yerandanahalli-Hosur	1962
Asset-6	220 kV S/C Line from Kadakola-Kaniyampet	5.3.1978
Asset-7	110 kV S/C Line from Konaje-Manjeshwar	13.10.1966

5. As Assets-3 to 7 had completed more than 25 years, only Interest on Working Capital (IWC) and O&M Expenses were allowed vide order dated 12.6.2019 for the said assets as per the normative methodology devised in Petition No. 155/TT/2017 vide order datd 22.6.2018, which was uniformly adopted in case of transmission lines owned by other States. Assets-1 and 2 had not completed 25 years as on 1.4.2014 and, hence all the tariff components were allowed for those two assets till they completed 25 years, i.e. 31.3.2017 as per the provisions of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014. On completion of 25 years in respect of these two assets (Asset-I and Asset-II) also, for the remaining years of 2014-19 Tariff Period i.e. 2017-18 and 2018-19, only IWC and O&M Expenses were allowed as per the approved methodology. The relevant portion of the impugned order dated 12.6.2019 is extracted hereunder:-

"13. Similar issue was considered by the Commission in its order dated 22.6.2018 in Petition No. 155/TT/2017 wherein the transmission charges in respect of natural ISTS lines were determined on the basis of methodology already adopted by the Commission. The relevant portion of the said order is extracted as under :

"9 Some of the other State Utilities have filed similar petitions claiming tariff of inter- State transmission lines connecting two States for the 2014-19 tariff periods as per the directions of the Commission. The information submitted by some State Utilities were incomplete and inconsistent. Further, some of the lines were more than 25 years old and the States were not having the details of the capital cost, funding, etc. To overcome these difficulties, the Commission evolved a methodology for allowing transmission charges for such transmission

lines connecting two States in orders dated 19.12.2017 in Petition Nos. 88/TT/2017, 173/TT/2016 and 168/TT/2016 filed by Madhya Pradesh Power Transmission Corporation Limited, Maharashtra State Electricity Regulatory Commission and Uttar Pradesh Power Transmission Corporation Limited respectively. The Commission adopted the same methodology in order dated 4.5.2018 in Petition No.112/TT/2017, while granting tariff for ISTS connecting Rajasthan with other States and owned by Rajasthan Rajya Vidyut Prasaran Limited. The Commission derived the benchmark cost on the basis of the transmission lines owned by PGCIL. The useful life of the transmission line was considered as 25 years and for lines more than or equal to 25 years, only O & M Expenses and Interest on Working Capital (IWC) has been decided to be allowed as per the existing Tariff Regulations. For assets put into commercial operation on or after 1.4.2014, tariff has been decided to be allowed on the basis of the audited financial capital cost. The relevant portion of the order dated 4.5.2018 is extracted hereunder:-

> *"13. It is observed that the information submitted by the petitioner States for computation of transmission charges for the deemed ISTS lines are not uniform, thereby causing divergence in working out the tariff. In some cases, the data related to funding and depreciation was not available and in some cases the assets have already completed, or nearing, their useful life. In most of the petitions, the states have expressed their inability to furnish the audited capital cost of transmission lines as the lines are old. As a result, tariff workings for old assets are ending in skewed results. It is further observed that the YTC figures emerging out by the existing ARR methodology are on the higher side. Considering these facts, we have conceptualized a modified methodology for determining the tariff of the inter-State transmission lines. The methodology is broadly based on the following:-*
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> ***Tariff Methodology***
>
> *14. As per the petitions filed by the states, their ISTS lines generally have the configuration of 132 kV, 220 kV or 400 kV. In the absence of an established tariff data base, in order to develop this methodology Annual Reports of PGCIL from 1989-90 to 2013-14 have been referred to. The Annual Reports depict, inter alia, the information pertaining to year wise total length of transmission lines in ckt-km and corresponding Gross Block. This pan-India data represents all the five transmission regions and is a composite mix of parameters like terrains, wind-zones, tower and conductor type etc. +/- 500 kV HVDC and 765 kV and above voltage level AC lines too have come up in between and the data also includes those lines. Voltage level wise data as on 30th April 2017, obtained from PGCIL indicates that the percentage of 220 kV, 132 kV and 66 kV Transmission Line taken together makes it around 8.3 % of the total line length owned by PGCIL. Further, 132 kV Transmission Lines were established in NER prior to 1990, and Transmission Lines of 220 kV voltage levels were last commissioned in around the year 2004 in NR. Majority of the transmission lines consist of 400 kV which corresponds to 66% of the total transmission line lengths. Thus, the 400 kV and lesser voltage levels account for approximately 75% of the transmission lines. Assuming the above referred spread of voltage wise percentages for earlier years too, it can be said that the year wise average Transmission Line cost figures derived from PGCIL data, when further reduced by 25%, fairly represent the average transmission line capital cost corresponding to a 400 kV S/C line.*

Considering 400 kV S/C transmission line cost as reference cost, analysis of PGCIL"s indicative cost data (P/L Feb 2017) suggests the following:-

SL. No.	***Reference cost of 400 kV S/C TL***	***` X lakh/km***
1	*400 kV D/C TL*	*1.39 X*
2	*2 220 kV D/C TL*	*0.57 X*
3	*220 kV S/C TL*	*0.36 X*
4	*132 kV D/C TL*	*0.43 X*
5	*132 kV S/C TL*	*0.31 X*

15. Therefore, for arriving at the costs of transmission lines of other voltage levels and circuit configurations, the average transmission line cost data shall be multiplied by the factors illustrated in the above table. Lower voltage levels can be treated as part of 132 kV. The above table contemplates Twin Moose conductor which is widely used in State transmission lines.

16. Based on respective year end data, average transmission line length during the year has been worked out. Difference between a particular year's average transmission line length figures and that for the immediate preceding year provides us the transmission line length added during that year. Average gross block corresponding to transmission lines has been divided by the average transmission line length to arrive at the Average Cost of transmission line (in ` lakh per ckt-km) during the year. Thus, considering the year of COD of a State's ISTS line and its ckt-km, its cost would be worked out by relating it to PGCIL's transmission line cost during that year. Although the Commission has relied on PGCIL's Annual Reports, there are certain deviations in the cost data worked out. The year 1989-90 was the year of incorporation for PGCIL, and the transmission assets of NTPC, NHPC, NEEPCO etc. were taken over by PGCIL by mid-1991-92. Thus, as the base data for these years was not available, the corresponding average cost of transmission line could not be worked out. The average cost from 1992-93 onwards up to 2013-14 shows an increasing trend at a CAGR of 5.17%. Therefore, for the years 1989- 90, 1990-91 and 1991-92, the average cost of transmission line has been back derived considering the 1992-93 average cost. Similarly, abnormal dip/spikes in the transmission line cost for the years 1996-97, 2001-02 and 2004-Order in Petition No. 24/TT /2018 Page 10 of 13 05 has been corrected by considering the average values of the transmission line costs in the immediate preceding and succeeding years.

17. While calculating tariff, the following has been considered:-

(i) Useful life of the transmission line shall be deemed to be 25 years.
(ii) Prevailing depreciation rates as per the 2014 Tariff Regulations shall be considered uniformly for all the previous tariff periods so as to do away with the Advance Against Depreciation which was in vogue during earlier tariff periods. Notwithstanding the depreciation considered as recovered earlier, for the purpose of these tariff calculations, remaining depreciable value shall be spread over the remaining useful life of the transmission line, where the elapsed life is more than or equal to 12 years.
(iii) Normative Debt-Equity ratio shall be 70:30.

(iv) Normative loan repayment during a year shall be deemed to be equal to the depreciation allowed for that year.
(v) Rate of Interest on normative loan shall be the weighted average rate of interest as derived on the basis of PGCIL's Balance Sheet.
(vi) In order to avoid complexity, grossing up of rate of Return on Equity with tax rate is being dispensed with.
(vii) Bank rate as defined in 2014 Tariff Regulations, 2014 as on 1.4.2014 shall be applied for calculating the rate of interest on working capital on normative basis.
(viii) O & M Expenses as per the 2014 Tariff Regulations shall be considered.
(ix) Where the life of transmission line is more than or equal to 25 years as on 1.4.2014, only O & M Expenses and IWC shall be allowed in lieu of complete tariff.

18. Thus, in effect, this is a normative tariff working methodology which shall be applied in those cases where the audited capital cost information is not available."

14. The Petitioner has not been able to provide the audited capital cost certificates for the instant assets. However, in line with the methodology explained in foregoing paragraphs, we now proceed to determine the tariff in respect of the following assets:"

6. The Commission in order dated 12.6.2019 allowed only IWC and O&M Expenses for assets which completed 25 years, considering only the line length and disallowed other components of tariff in respect of Asset 3 to 7. The relevant extract of the impugned order is an under:

"15. Assets 3 to 7 have already completed twenty five years. Therefore, as per the above methodology, only "Interest on working capital" and "O & M Expenses" components of tariff shall be allowable for these assets. Asset-1 and Asset-2 have not completed 25 years as on 1.4.2014. Therefore, in line with the aforesaid methodology, all tariff components are being allowed till 2016-17. However, on completion of 25 years of these assets, only 2 components namely "Interest on working Capital" and "O & M Expenses" are being allowed for the year 2017-18 and 2018-19."

7. Aggrieved by the aforesaid finding of the Commission, KPTCL has filed the instant review petition contending that denial of all the components of transmission tariff in respect of Assets 3 to 7 and considering only line length and not bays while granting O&M Expenses constitute an error apparent on the face of record which requires modification.

Submissions by KPTCL

8. KPTCL has sought the following reliefs:-

a) *Allow O&M expenses on bays as well as Return on Equity (RoE) in terms of the CERC Terms and Conditions for Tariff Regulation, 2014,*

b) *Approve the Annual Revenue Requirement for the 1.4.2014 to 31.3.2019 of `34.56 crore, in the interests of justice.*

9. KPTCL has enumerated the following grounds for review of the impugned order:-

a) The Commission while considering the O&M Expenses has considered only line length and not number of bays. The line and bay together form natural ISTS line and maintenance of line and bay both are necessary for flow of power. Therefore, the claim made by KPTCL includes both lines and bays. However, only transmission lines have been considered for grant of O & M Expenses and line bays have not been considered.

b) The Petitioner provided the details of number of bays pertaining to each line. The Commission while approving ARR for the tariff period from 1.4.2014 to 31.3.2019 has admitted the O&M Expenses incurred towards maintenance of bays. However, Commission has inadvertently overlooked the same in the impugned order.

c) The Regulation 29(4)(a) of the 2014 Tariff Regulations, stipulates that ₹42.21 lakh is admissible for O&M Expenses for bay at 220 kV level for the year 2014. However, it is not allowed which has resulted in reduction of the transmission tariff for which KPTCL is entitled to.

d) Disallowance of RoE of assets which have completed 25 years is contrary to the provisions of the 2014 Tariff Regulations. The said Regulations do not provide for disallowance of RoE.

e) The Commission has failed to appreciate that the petition was filed for approval of transmission tariff, RoE and O&M Expenses incurred with regard to bays also.

f) The Commission has erroneously disallowed RoE component for assets which have completed 25 years. Disallowance of RoE is not contemplated as equity portion does not get eroded on completion of 25 years.

Therefore, Review Petitioner is entitled for normative return as requested for in the petition.

10. During the hearing on 16.7.2020, learned counsel for KPTCL reiterated the submissions made in the review petition and submitted that disallowance of O&M Expenses for the bays meant for the transmission lines and disallowance of RoE for assets which have completed 25 years in order dated 12.6.2019 are errors apparent on face of record which need to be modified.

Analysis and Decision

11. We have heard the submissions of KPTCL and have also perused the impugned order and documents on record. KPTCL is primarily aggrieved with the non-consideration of bays while granting the O&M Expenses and disallowance of RoE for assets which have completed 25 years.

12. The first contention of KPTCL is that the Commission should have considered the bays meant for the non-ISTS lines carrying inter-State power between Karnataka and neighbouring States while approving O&M Expenses, as the line and bay are necessary for flow of power. We have considered the contention of KPTCL. The Commission in order dated 14.3.2012 in Petition No.15/SM/2012 had clearly stated in paragraph 6 that the non-ISTS lines connecting two States would be included in the computation of PoC charges and there was no mention of the bays in the said order. Accordingly, O&M Expenses are allowed only for non-ISTS lines connecting Karnataka with neighbouring States and O&M Expenses are not allowed for bays. This methodology was adopted not only in case of Karnataka but in case of all other States uniformly. Further, the same methodology was adopted while granting tariff for the 2011-14 period for the non-ISTS lines owned by Karnataka in order dated

12.2.2013 in Petition No.225/TT/2013 and this issue was not raised by KPTCL then. The Commission is consistently of the view that tariff, including O&M Expenses would be granted only for the transmission lines and not for the bays and as such there is no error apparent in this regard. Accordingly, the review on this ground is rejected.

13. The next contention of KPTCL is that RoE should have also been allowed for the assets which have completed 25 years of life and that disallowance of RoE in the impugned order is an apparent error. We have considered the submissions of KPTCL. The Commission found that the information furnished by some of the States, while claiming tariff for the non-ISTS lines carrying ISTS power for the 2014-19 period to be inconsistent and incomplete. Further, some of the lines were found to be more than 25 years old and the States were not having the details of the capital cost, funding etc. So the Commission in order to maintain uniformity has evolved a normative methodology on the basis of the transmission lines owned by PGCIL for allowing transmission charges for the State-owned non-ISTS lines carrying ISTS power. The basis of arriving at the normative methodology is quoted in paragraph 5 above and has been adopted in case of all the States. According to this approved normative methodology, besides other things, the useful life of the transmission line is deemed to be 25 years and for transmission lines of more than 25 years old as on 1.4.2014, only O&M Expenses and IWC are allowed. In view of the above, in case of Assets-3 to 7 covered in the impugned order, which are more than 25 years old as on 1.4.2014, only O&M Expenses and IWC were allowed. Further, Assets-1 and 2 completed 25 years in 2017. Therefore, for Assets-1 and 2, RoE and other components of tariff were allowed up to 2016-17 and for the years 2017-18 and 2018-19, only IWC and O&M Expenses were allowed as per the approved normative

methodology. As the same methodology has been adopted for all the States, we see no error apparent on record on this ground. Thus, review of the impugned order on this ground is also rejected.

14. In view of the above discussion, Review Petition No. 4/RP/2020 is disposed of at the stage of admission.

Sd/	Sd/	Sd/
(Arun Goyal)	**(I. S. Jha)**	**(P.K. Pujari)**
Member	**Member**	**Chairperson**