

**CENTRAL ELECTRICITY REGULATORY COMMISSION
New Delhi**

Petition No. 353/TT/2023

Coram:

**Shri Jishnu Barua, Chairperson
Shri Ramesh Babu V., Member
Shri Harish Dudani, Member**

Date of Order: 07.05.2025

In the matter of:

Petition filed under Sections 62 & 64 of the Electricity Act, 2003, read with the Central Electricity Regulatory Commission (Sharing of Inter State Transmission Charges and Losses) Regulations, 2020, for claiming the Yearly Transmission Charges for 9 Nos. 220 kV lines for FY 2021, owned by KPTCL certified as carrying inter-State Power by SRPC.

And in the matter of:

**Karnataka Power Transmission Corporation Limited,
Kaveri Bhavan,
Bangalore-560009, Karnataka.**

...Petitioner

Vs.

1. **Transmission Corporation of Telangana Limited,**
6-3-572 Vidyut Soudha,
Khairatabad, Hyderabad-500082.
2. **Maharashtra State Electricity Transmission Company Limited,**
4th Floor A-Wing, Prakashganga, E-Block, Plot No. C 19,
Bandra-Kurla Complex, Bandra (East),
Mumbai-400051
3. **Transmission Corporation of Andhra Pradesh Limited,**
Planning, Power Systems & Commercial,
Vidyut Soudha, Gunadala,
Eluru Road, Vijayawada-520004,
Andhra Pradesh
4. **Central Transmission Utility of India Limited,**
Saudamini, Plot No. 2, Sector 29,
Near IFFCO Chowk Metro Station,
Gurgaon-122001, Haryana.



5. **Southern Regional Power Committee,**
Central Electricity Authority,
No. 29, Race Course Cross Road,
Bengaluru-560009, Karnataka.
6. **Southern Regional Load Despatch Centre,**
SRLDC, POSOCO,
29, Race Course Cross Road,
Bengaluru-560009, Karnataka.
7. **Andhra Pradesh Power Coordination Committee**
Vidyut Soudha,
Gunadala, Vijaywada– 520004
Andhra Pradesh.
8. **Telangana State Power Coordination Committee,**
A-Block, Room No. 451,
Vidyut Soudha, Khairatabad,
Hyderabad-500082, Telangana.

...Respondents

Parties present : Ms. Sumana Naganand, Advocate, KPTCL
Shri Arnav Khanna, Advocate, KPTCL
Shri Tushar Kanti Mohindroo, Advocate, KPTCL
Shri Alok Mishra, SRLDC

ORDER

The present Petition has been filed by Karnataka Power Transmission Corporation Limited (KPTCL), a deemed transmission licensee under Section 14 of the Electricity Act, 2003, carrying out the business of transmission of electrical energy in the State of Karnataka, for the determination of the Yearly Transmission Charges (YTC) of the intra-State transmission lines certified by the Southern Regional Power Committee (SRPC) as non ISTS lines carrying more than 50% inter-State power, for inclusion in PoC transmission charges for FY 2020-21 in accordance with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulation, 2019 (herein referred to as “the 2019 Tariff Regulations”) and the Central Electricity Regulatory Commission (Sharing of Inter State Transmission Charges and Losses)



Regulations, 2020 (herein referred to as “the 2020 Sharing Regulations”) for the following nine (transmission lines:

Sl. No.	Name of the Line	COD
1.	220 kV Sedam – Raichur TPS Line 1	1993-94
2.	220 kV Sedam – Raichur TPS Line 2	1993-94
3.	220 kV Sedam – Shahpur Line	2006-07
4.	220 kV Raichur TPS – Raichur Line 1	1986-87
5.	220 kV Raichur TPS – Raichur Line 2	1986-87
6.	220 kV Chikkodi – Belgaum Line 1	27.2.1998
7.	220 kV Chikkodi – Belgaum Line 2	27.2.1998
8.	220 kV Chikkodi – Ghataprabha Line 1	21.11.2013
9.	220 kV Chikkodi – Ghataprabha Line 2	21.11.2013

2. The Petitioner has made the following prayers in the instant Petition:

“The Commission may be pleased to approve the YTC claimed for the 9 Nos. of 220kV Lines for the year 2020-21 as stated in para 5 in terms of CERC (Sharing of Interstate Transmission Charges and Losses) Regulations, 2020.”

Background

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

(a) The relevant para specified under Regulation 13(13) of the 2020 Sharing Regulations is reproduced as under:

“13.

(13) An intra-State transmission system for which tariff is approved by the Commission shall be included for sharing of transmission charges of DICs in accordance with Regulations 5 to 8 of these regulations, only for the period for which such tariff has been approved”.

(b) The Commission had issued the following Statement of Reasons (SOR) dated 10.8.2020 for the 2020 Sharing Regulations, on intra-State transmission charges:

“(39)(3)(2) Approval of tariff for intra-State system is done by SERCs. However, in circumstances where as intra-State system is used for inter-State flow of power, its tariff is required to be approved by CERC, if such system is to be considered for recovery of transmission charges under the 2020 Sharing Regulations”.

(c) The Commission, vide order dated 12.5.2017 in Petition No. 07/SM/2017, directed the owners/developers of the natural inter-State lines, to file



Petitions for the 2014-19 tariff period as per the list of the natural inter-State lines for which tariff was granted by the Commission for the 2009-14 tariff period, in accordance with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (herein referred to as “the 2014 Tariff Regulations”).

- (d) The Petitioner, initially filed Petition No. 41 of 2021 before the Karnataka Electricity Regulatory Commission (KERC), for determination of the YTC for nine 220 kV intra-State lines owned by the Petitioner used for inter-State transmission for FY 2021, based on the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and losses) Regulations, 2010, as amended from time to time (particularly Third Amendment). However, in between, new regulations, namely the 2020 Sharing Regulations, were published on 1.11.2020. Regulation 2(1) (ee) of the 2020 Sharing Regulations stipulates that the YTC for the intra-State transmission lines used for inter-State transmission is required to be approved by this Commission.
- (e) Consequently, the Petitioner sought permission from the State Commission to withdraw Petition OP No. 41 of 2021, with a liberty to file a fresh Petition before the Commission as per the 2020 Sharing Regulations.
- (f) Further, SRPC issued a list of intra-State transmission lines of KPTCL, qualified as the non-ISTS lines carrying more than 50% inter-State power for inclusion in the PoC charges vide its letter dated 30.4.2020 (for FY 2020-21).



- (g) Accordingly, on the basis of the SRPC certification and the 2020 Sharing Regulations, the Petitioner has filed the instant Petition, for consideration of the following nine intra-State transmission lines, carrying more than 50% inter-State power, for inclusion in the PoC transmission charges and for determination of the transmission charges for FY 2020-21:

Sl. No.	Name of the line	COD	YTC for 2020-21 (₹ in lakh)
1.	220 kV Sedam – Raichur TPS Line 1	1993-94	320.79
2.	220 kV Sedam – Raichur TPS Line 2	1993-94	
3.	220 kV Sedam – Shahpur Line	2006-07	190.81
4.	220 kV Raichur TPS – Raichur Line 1	1986-87	28.44
5.	220 kV Raichur TPS – Raichur Line 2	1986-87	53.16
6.	220 kV Chikkodi – Belgaum Line 1	27.2.1998	321.67
7.	220 kV Chikkodi – Belgaum Line 2	27.2.1998	
8.	220 kV Chikkodi – Ghataprabha Line 1	21.11.2013	325.62
9.	220 kV Chikkodi – Ghataprabha Line 2	21.11.2013	
TOTAL			1240.48

4. The Respondents include Distribution Licensees, Power Departments, Power Utilities, and Transmission Licensees that receive transmission services from the Petitioner, primarily benefiting the Southern Region.

5. The Petitioner has served a copy of the Petition on the Respondents, and notice regarding the filing of this Petition has been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003 (the Act). No comments or suggestions have been received from the general public in response to the aforesaid notices published in the newspapers by the Petitioner. No reply has been received from any of the Respondents.

6. The hearing in the matter was held on 8.11.2024, and the order was reserved.

7. This order is issued considering the submissions made by the Petitioner in the Petition, affidavit dated 5.7.2023, and subsequent affidavits dated 20.2.2024,



7.8.2024, and 26.9.2024, affidavits dated 29.7.2024 and 31.7.2024 filed by SRLDC and SRPC, respectively.

8. Having heard the Petitioner's representative and perused the material available on record, we proceed to dispose of the Petition.

Hearing dated 31.1.2024:

9. In response to the Commission's direction vide RoP for the hearing dated 31.1.2024, the Petitioner impleaded CTUIL, SRPC, SRLDC, APTRANSCO, APPCC, TSPCC, TSTRANSCO, and SRLDC as Respondents in the Petition.

10. In response to the Commission's query, the Petitioner, vide affidavit dated 20.2.2024, has submitted as under:

- (a) The transmission lines mentioned in the Petition were constructed to strengthen the intra-State transmission system. Further, these transmission lines are intervening with the inter-State transmission system, thereby aiding in the transmission of the inter-State transmission system power.
- (b) The transmission lines covered in the instant Petition are used on an as-needed basis. Since the power flows are dynamic, the transmission lines need to be maintained regularly when the need arises. In situations where a new substation or line in the vicinity of these lines affects the power flow, these transmission lines are used for evacuation and transfer of the ISTS power. Hence, it becomes essential to ascertain the power flow of the lines on a yearly basis.
- (c) The SRPC routinely examines the nature of these lines. Based on the examination of the lines, the SRPC vide letter dated 30.4.2020 clarified



that these nine 220 kV lines (as mentioned in the Petition), owned by the Petitioner, are carrying more than 50% of the inter-State power for the FY 2020-21. Therefore, on the basis of the letter dated 30.4.2020, the Petitioner has claimed YTC only for the FY 2020-21. Moreover, for the period between FY 2017-2020, the KERC determined the transmission tariff for the inter-State transmission system lines of the Petitioner, as certified by the SRPC. Further, the 2020 Sharing Regulations, which came into effect on 1.11.2020, subsequently led to the filing of the instant Petition. Further, for FY 2021 onwards, the SRPC is yet to certify the status of the said lines. However, based on the data furnished by the State Load Dispatch Centre, Karnataka (hereinafter referred to as “SLDC, Karnataka”) is in the process of filing a Petition before the KERC for FY 2020-23 and FY 2023-24.

- (d) The COD of the transmission assets has been provided in detail in the Petition and also alongwith the instant affidavit and the same is as under:

Sl. No.	Name of the line	COD
1.	220 kV Sedam – Raichur TPS Line 1	1993-94
2.	220 kV Sedam – Raichur TPS Line 2	1993-94
3.	220 kV Sedam – Shahpur Line	2006-07
4.	220 kV Raichur TPS – Raichur Line 1	1986-87
5.	220 kV Raichur TPS – Raichur Line 2	1986-87
6.	220 kV Chikkodi – Belgaum Line 1	27.2.1998
7.	220 kV Chikkodi – Belgaum Line 2	27.2.1998
8.	220 kV Chikkodi – Ghataprabha Line 1	21.11.2013
9.	220 kV Chikkodi – Ghataprabha Line 2	21.11.2013

Submission of the SRLDC

11. In response to the information sought vide RoP dated 16.7.2024, SRLDC vide affidavit dated 29.7.2024 has submitted that the transmission lines mentioned in the instant Petition are intra-State lines. As per the Central Electricity Authority (Installation and Operation of Meters) Regulation, 2006, interface meters installed at



the intra-State transmission system for the purpose of electricity accounting and billing shall be owned by the STU, Accordingly, SRLDC does not have the information sought by the Commission. SRLDC has further submitted that the transmission lines mentioned in the instant Petition are intra-State lines and the drawl pattern recorded, if any, are not available with SRLDC and, hence, not used in any of the computation of ISTS level. ,

Submission of the SRPC

12. In response to the information sought vide RoP dated 16.7.2024, vide affidavit dated 31.7.2024, the SRPC has submitted as under:

- a) In line with the provisions of the 2010 Sharing Regulations, as amended from time to time (particularly the Third Amendment of 2015), in the 33rd Meeting of the commercial sub-committee of SRPC held on 31.1.2017, the methodology for the SRPC certification of the inter-State lines, carrying power to the other State, applicable to all utilities, was recommended for approval of the SRPC and the extract of the same is as under:

“.....

The Certification would be valid for a financial year. the base case of each quarter submitted by DIC to validation committee for PoC Computation of the previous financial year would be examined for certification in the current year. If in each base case the usage of state-owned line is more by other state than home state then those lines would be certified as Non-ISTS lines carrying Inter State Power. The usage of line would be obtained through WebNet Software.”

.....”

- b) In the 31st SRPC meeting held on 25.2.2017, SRPC approved the methodology for certification of non-ISTS lines, having more than 50% utilization for carrying inter-State power.
- c) In line with the approved methodology, SRPC's Secretariat in consultation with the SRLDC carried out the certification for non-ISTS lines having more than 50% utilization for carrying inter-State power transmission for the FY



2019-20 and FY 2020-21 using WebNet Software, and the methodology was issued by the SRPC vide letters dated 7.3.2019 and 30.4.2020.

Submission of the Petitioner:

13. In response to the information sought vide RoP for the hearing dated 16.7.2024, the Petitioner, vide affidavit dated 7.8.2024, has submitted the SRPC Certificate for the availability of the non-ISTS lines for FY 2019-20 and FY 2020-21. Further, the Petitioner, vide affidavit dated 26.9.2024, has submitted that the power flow details have been collected feeder-wise after extracting it from the SCADA System with respect to the transmission line/assets for the FY 2021. The details of power flow as submitted by the Petitioner are as follows:

S. No	Transmission Line	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR
1	220 kV Sedam – Raichur TPS Line 1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2	220 kV Sedam – Raichur TPS Line 2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
3	220 kV Sedam-Shahpur Line	No Data	No Data	No Data	No Data	No Data	Yes	Yes	Yes	Yes	Yes	Yes	Yes
4	220 kV Raichur TPS – Raichur Line 1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
5	220 kV Raichur TPS – Raichur Line 2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
6	220 kV Chikkodi – Belgaum Line 1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
7	220 kV Chikkodi-Belgaum Line 2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
8	220 kV Chikkodi-Ghataprabha Line 1	No Data	No Data	Yes	Yes	Yes	Yes	No Data	Yes	Yes	Yes	Yes	Yes
9	220 kV Chikkodi – Ghataprabha Line 2	No Data	No Data	Yes	Yes	Yes	Yes	No Data	Yes	Yes	Yes	Yes	Yes

14. We have considered the Petitioner's, SRLDC's, and SRPC's submissions and have perused the documents available on record. From the submissions of the parties, the following issues arise for our consideration:



Issue No. 1: Whether the Commission can grant tariff for intra-State transmission lines carrying ISTS power certified by the SRPC?

Issue No. 2: Whether tariff can be granted for intra-State transmission lines carrying ISTS power from 1.11.2020 to 31.3.2021?

15. The above issues have been dealt with in the succeeding paragraphs.

Issue No 1: Whether the Commission can grant tariff for intra-State transmission lines carrying ISTS power certified by the SRPC?

16. The Petitioner in the present Petition has sought determination of the transmission tariff in respect of nine intra-State transmission lines owned by it and certified by the SRPC as non-ISTS lines carrying more than 50% inter-State power, for inclusion in the PoC transmission charges for FY 2020-21.

17. According to the Petitioner, the SRPC has certified the above-mentioned transmission lines as ISTS based on the fact that these lines can carry 50% inter-State power. The SRPC, vide its letter dated 30.4.2020, has certified the non-ISTS lines carrying inter-State power during FY 2020-21. The relevant extract of the aforesaid letter is as follows:

“SRPC Letter dated 30.4.2020

Subject: Certification of Non-ISTS Line carrying interstate power for the period 2020-21, which were having more than 50% utilization for interstate power transmission during the Year 2019-20 -Regarding.

In compliance with the regulations, 66 non ISTS lines as listed in the Annexure are certified as lines carrying interstate power, in consultation with SRLDC. The data used for the study is taken from Quarter -I to Quarter-IV of 2019-20, which is considered for POC computation as discussed.

NON ISTS LINES CERTIFIED FOR THE YEAR 2020-21

S. No.	Asset	Voltage (kV)	State
52	SEDAM I-RAICHUR TPS:1	220	KA
53	SEDAM 1-SHAHAPUR:1	220	KA
54	SEDAM 1- RAICHUR TPS:2	220	KA
55	RAICHUR TPS-RAICHUR 1: 1	220	KA
56	RAICHUR TPS-RAICHUR 1: 2	220	KA
57	CHIKKODI-BELGAUM:2	220	KA



58	CHIKKODI-BELGAUM:1	220	KA
59	CHIKKODI-GATAPRABA:1	220	KA
60	CHIKKODI-GATAPRABA:2	220	KA

18. We think it appropriate here to refer to Regulation 7(1)(n) of the 2010 Sharing Regulations, which provides as under:

“7. Process to determine Point of Connection Transmission Charges and losses allocations.

(1) The process to determine the allocation of transmission charges and losses shall be as under, and as per timelines set out subsequently in Chapter 7 of these regulations:

(n) For the computation of transmission charges at each node as per Hybrid Methodology, cost of ISTS transmission licensees whose lines feature on the Basic Network shall be considered:

Provided that in case of STU lines which are physically inter-State lines and whose tariff is approved by the Commission, such tariff shall be considered for computation of PoC charges:

Provided further that in case of non-ISTS lines (lines owned by STUs but being used for carrying inter-State power as certified by respective RPCs), the asset-wise tariff as approved by the respective State Commission shall be considered. Where asset-wise tariff is not available, the tariff as computed by the Commission based on the ARR of the STUs (as approved by respective State Commissions) by adopting the methodology similar to the methodology used for ISTS transmission licensees shall be considered. The transmission charges received by the concerned STU on this account shall be adjusted in its approved Annual Revenue Requirement.”

19. In view of the above provisions, the transmission lines owned by the STUs, being used for carrying inter-State power as certified by the respective RPCs, the asset-wise tariff approved by the respective State Commissions, or the tariff as computed by the Commission, shall be considered for computation of the PoC charges. Further, the transmission charges received by the concerned STU on this account shall be adjusted in its approved Annual Revenue Requirement (ARR).

20. We further deem it proper to refer to Para 2.1.3 of Annexure-I of the 2010 Sharing Regulations, which provides as follows:



“

Certification of non-ISTS lines carrying inter-State power, which were not approved by the RPCs on the date of notification of the Central Electricity Regulatory Commission (Sharing of Transmission Charges and Losses) Regulations, 2009, shall be done on the basis of load flow studies. For this purpose, STU shall put up proposal to the respective RPC Secretariat for approval. RPC Secretariat, in consultation with RLDC, using WebNet Software would examine the proposal. The results of the load flow studies and participation factor indicating flow of Inter State power on these lines shall be used to compute the percentage of usage of these lines as inter State transmission. The software in the considered scenario will give percentage of usage of these lines by home State and other than home State. For testing the usage, tariff of similar ISTS line may be used. The tariff of the line will also be allocated by software to the home State and other than home State. Based on percentage usage of ISTS in base case, RPC will approve whether the particular State line is being used as ISTS or not. Concerned STU will submit asset-wise tariff. If asset wise tariff is not available, STU will file petition before the Commission for approval of tariff of such lines. The tariff in respect of these lines shall be computed based on Approved ARR and it shall be allocated to lines of different voltage levels and configurations on the basis of methodology which is being done for ISTS lines.”

21. On perusal of the above provision, we are of the view that the above-mentioned transmission lines have been certified by the SRPC for carrying more than 50% inter-State power. SRPC, in its letter dated 30.4.2020, has certified nine transmission lines to carry the power for FY 2020-21. Taking into consideration the SRPC certification of these lines, we observe that the following nine non-ISTS lines are carrying the inter-State power for FY 2020-21 and have been considered for approval of the tariff for FY 2020-21:

Sr. No.	Name of the line	COD
1.	220 kV Sedam – Raichur TPS Line 1	1993-94
2.	220 kV Sedam – Raichur TPS Line 2	1993-94
3.	220 kV Sedam – Shahpur Line	2006-07
4.	220 kV Raichur TPS – Raichur Line 1	1986-87
5.	220 kV Raichur TPS – Raichur Line 2	1986-87
6.	220 kV Chikkodi – Belgaum Line 1	27.2.1998
7.	220 kV Chikkodi – Belgaum Line 2	27.2.1998
8.	220 kV Chikkodi – Ghataprabha Line 1	21.11.2013
9.	220 kV Chikkodi – Ghataprabha Line 2	21.11.2013

Issue No:2 Whether tariff can be granted for intra-State transmission lines carrying ISTS power from 1.11.2020 to 31.3.2021?

22. The Petitioner has claimed the transmission tariff for FY 2020-21, i.e., from



1.4.2020 to 31.3.2021.

23. We have considered the Petitioner's submissions. We think it apt to refer to Regulation 13(13) of the 2020 Sharing Regulations, which provides as under:

"13...

(13) An intra-State transmission system for which tariff is approved by the Commission shall be included for sharing of transmission charges of DICs in accordance with Regulations 5 to 8 of these regulations, only for the period for which such tariff has been approved."

24. The Statement of Reasons (SOR) of the 2020 Sharing Regulations provides as under:

"39.3 Analysis and Decision

39.3.1. The rationale for the proposed Clause was provided in the Explanatory Memorandum issued along with the Draft 2019 Sharing Regulations. Such intra-State systems that have already been certified by RPC as being used for inter-State use and for which tariff has already been approved by the Commission shall be covered under these Regulations.

39.3.2 Approval of tariff for intra-State system is done by SERCs. However, in circumstances where an intra-State system is used for inter-State flow of power, its tariff is required to be approved by CERC, if such system is to be considered for recovery of transmission charges under the 2020 Sharing Regulations."

25. We have considered the Petitioner's and SRPC's submissions. Considering the certification carried out by the SRPC under the provisions of the 2010 Sharing Regulations, we are of the view that the above-mentioned transmission lines shall be considered for the PoC charges under the 2010 Sharing Regulations for FY 2020-21 (up to 31.10.2020).

26. In the instant case, SRPC has certified the above-mentioned transmission lines by considering the power flow details from Quarter-I to Quarter-IV of FY 2019-20, which fall under the 2010 Sharing Regulations. We are of the view that the certificate issued by the SRPC under the provisions of the 2010 Sharing Regulations is applicable to the instant non-ISTS lines. Therefore, the transmission tariff for these



assets for the period from 1.11.2020 to 31.3.2021 is allowed

Capital Cost of the Transmission Lines

27. The Commission, in order dated 19.12.2017 in Petition No. 173/TT/2016, while approving tariff for the nine transmission lines connecting two States/ deemed ISTS lines owned by the Petitioner for FY 2014-15, adopted the methodology followed in the case of other States, where the useful life of the transmission lines was considered as 25 years.

“Tariff Methodology:

25. 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 transmission lines’ length 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 & 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 TL taken together makes it around 8.3 % of the total line length owned by PGCIL. Further, 132 kV TLs 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 TL 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:

ence cost of 400 kV S/C TL		akh/km
	400 kV D/C TL	
	220 kV D/C TL	0.57 X
	220 kV S/C TL	0.36 X
	132 kV D/C TL	0.43 X
	132 kV S/C TL	0.31 X

26. Therefore, for arriving at the costs of transmission lines of other voltage levels and circuit configurations, the average TL 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 States’ transmission lines.

27. Based on respective year end data, average transmission line length during the year



has been worked out. Difference between a particular year's average TL 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 TL length to arrive at the Average Cost of TL (in Rs 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 TL 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 TL 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 TL has been back derived considering the 1992-93 average cost. Similarly, abnormal dip/spikes in the TL cost for the years 1996-97, 2001-02 and 2004-05 has been corrected by considering the average values of the TL costs in the immediate preceding and succeeding years.

28. 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 CERC (Terms & Conditions of Tariff) Regulations, 2014 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 CERC (Terms & Conditions of 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 CERC (Terms & Conditions of Tariff) Regulations, 2014 shall be considered.
- (ix) Where the life of TL is more than or equal to 25 years as on 01.04.2014, only O & M expenses and IWC shall be allowed in lieu of complete tariff.

29. 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."

28. It is noticed that MPPTCL filed Appeal No. 415 of 2019 against the order dated 19.12.2017 in Petition No. 88/TT/2017 and order dated 12.6.2019 in Review Petition No.11/RP/2018 (in Petition No. 88/TT/2017) before the Appellate Tribunal for Electricity (APTEL). The APTEL vide its common judgment dated 14.11.2022 in



Appeal Nos. 267 and 274 of 2018 filed by RRVPNL and Appeal No. 415 of 2019 filed by MPPTCL had set aside the abovementioned methodology of allowing the tariff for the deemed ISTS lines, reckoning their useful life as 25 years. The APTEL, in the said judgment, had observed that the useful life of the State-owned Deemed ISTS lines shall be the same as for the ISTS lines specified in the 2014 Tariff Regulations, which is 35 years. The relevant portions of the said judgment of the APTEL are as follows:

“30. Accordingly, as observed above, it is opined that the decision of the Central Commission for considering the useful life of the State owned Deemed ISTS lines as 25 years is not correct. The useful life of the subject transmission lines shall be the same as for the ISTS lines as specified in the Tariff Regulations 2014 and the Sharing Regulations, 2010 which is 35 years.

ORDER

For foregoing reasons as stated supra, we are of the considered view that the captioned Appeal No. 267 of 2018, Appeal No. 274 of 2018 and Appeal No. 415 of 2019 have merit and are allowed.

The impugned orders dated 20.06.2018 in Petition No. 215/TT/2017, dated 04.05.2018 in Petition No. 112/TT/2017 and dated 19.12.2017 in Petition No. 88/TT/2017 read with the order dated 12.06.2019 in Review Petition 11/RP/2018 passed by the Central Electricity Regulatory Commission are set aside.

The Central Electricity Regulatory Commission is directed to revisit the impugned orders and pass the consequential orders in accordance with the observations made in the foregoing paragraphs.”

29. Being aggrieved with the APTEL's common judgment dated 14.11.2022 in Appeal Nos. 267 of 2018 and 274 of 2018, RRVPNL filed the review petitions before the APTEL as Review Petition No. 12 of 2022 and 13 of 2022, respectively. The grounds for review, as recorded by the APTEL in its judgment dated 6.7.2023, are as follows:

“4. The Appeal Nos. 267 & 274 of 2018 were filed assailing the Impugned Orders passed by the Central Commission on two issues that is 1) consideration of the useful life of the Deemed Inter-State Transmission System (‘ISTS’) Lines to be 25 years instead of the 35 years as prescribed in the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2014 (‘Tariff Regulations, 2014’), and 2) direction to the Review Petitioner to file a fresh Petition in respect of ISTS lines on the purported ground that the data in the prescribed format (Line- wise format) was not provided.



5. However, while passing the judgment dated 14.11.2022, this Tribunal allowed the appeals to the extent of aforementioned issue no. 1), also noting that the Issue mentioned at 2) is not being pressed and accordingly, no finding has been passed on this issue, hence the captioned Review Petitions limited to this extent.”

“7. As seen from above, the Review Petitioner herein i.e. the Appellant in 267 & 274 of 2018 has assailed both the issues in the said appeals, as such, both the issues required adjudication, therefore, the Review Petitions have merit and justify to be allowed for judicious conclusion of the appeals nos. 267 & 274 of 2018.

8. As the second issue assailed by the Appellant in Appeal Nos. 267 & 274 of 2018 has not been considered and decided, is an error which is evident on a mere relook at the prayers made in the aforesaid appeals and the written submissions placed on record by the Appellant, and does not require re-examination or detailed discussions.

9. Therefore, we find it most appropriate to review the earlier judgment of this Tribunal.”

30. The APTEL vide judgment dated 6.7.2023 allowed the Review Petition No. 12 of 2022 and Review Petition No. 13 of 2022 filed by RRVPNL, while considering the similar issue raised by MPPTCL in Appeal No. 415 of 2019, remitted back Petition No. 215/TT/2017, Petition No. 112/TT/2017 and Petition No. 88/TT/2017 along with Review Petition No. 11/RP/2018 (in Petition No. 88/TT/2017) for re-consideration of the Commission. The relevant portion of the judgment is as follows:

“ORDER

For the foregoing reasons as stated above, we are of the considered view that the Review Petitions have merit and are allowed, the earlier judgment dated 14.11.2022 passed by this Tribunal in Appeal Nos. 267 & 274 of 2018 is amended to the extent as concluded above.

The orders dated 20.06.2018 in Petition No. 215/TT/2017, dated 04.05.2018 in Petition No.112/TT/2017 and dated 19.12.2017 in Petition No. 88/TT/2017 read with the order dated 12.06.2019 in Review Petition 11/RP/2018 passed by the Central Electricity Regulatory Commission are set aside.

The Central Commission shall pass consequential orders by considering the useful life of the State owned Deemed ISTS lines same as for the ISTS lines as specified in the Tariff Regulations 2014 and the Sharing Regulations, 2010 which is 35 years and determining the tariff in accordance with the Regulations specified.

The Review Petitions alongwith IAs, if any, are disposed of accordingly.”

31. As per the APTEL’s directions dated 14.11.2022 in Appeal No. 267 of 2018 and batch matters and the subsequent judgment dated 6.7.2023 in Review Petition Nos.



12 of 2022 and 13 of 2022, we have considered the useful life of the transmission lines as 35 years. Accordingly, we have modified the methodology adopted by us earlier for approving the transmission charges for the transmission lines connecting two States/ deemed ISTS lines, considering the useful life of the transmission lines as 35 years. For the determination of the transmission charges of the assets, which have not completed their 35 years of service as on 1.4.2014, the capital cost of the transmission lines is derived from FY 1979-80 onwards till 31.3.2014. As per the earlier methodology, the capital cost has been approved by the Commission from FY 1989-90 onwards till 31.3.2014. Further, in the earlier methodology, due to the unavailability of the base data for FY 1989-90, FY 1990-91 and FY 1991-92, the average cost of transmission lines has been back derived considering the average cost from FY 1992-93 onwards up to 2013-14 at a Compound Annual Growth Rate (CAGR) of 5.17%. The methodology for deriving the average cost of transmission lines for FY 1989-90, FY 1990-91, and FY 1991-92 has been extrapolated backwards to derive the average cost of transmission lines for FY 1979-80 to FY 1988-89. Accordingly, the average capital cost of the transmission lines for FY 1979-80, FY 1980-81, FY 1981-82, FY 1982-83, FY 1983-84, FY 1984-85, FY 1985-86, FY 1986-87, FY 1987-88, and FY 1988-89 has been back derived by applying the Compound Annual Growth Rate (CAGR) factor of 5.17%. The capital cost of the transmission lines, which have not completed 35 years, has been worked out as per the said methodology.

32. Therefore, the status of the useful life completed by the instant non-ISTS transmission lines is as follows:

Sl. No.	Name of the Assets	Length of the Lines (in km)	COD	Useful life of 35 years completed as on*	Whether useful life completed as on 31.3.2020
1	220 kV Sedam – Raichur	102.60	1993-94	1.4.2028	NO



	TPS Line 1				
2	220 kV Sedam – Raichur TPS Line 2		1993-94	1.4.2028	NO
3	220 kV Sedam- Shahpur Line (S/C)	114.85	2006-07	1.4.2041	NO
4	220 kV Raichur TPS – Raichur Line 1 (S/C)	16.08	1986-87	1.4.2021	NO
5	220 kV Raichur TPS – Raichur Line 2 (S/C)	17.09	1986-87	1.4.2021	NO
6	220 kV Chikkodi – Belgaum Line 1	96	27.2.1998	27.2.2033	NO
7	220 kV Chikkodi-Belgaum Line 2		27.2.1998	27.2.2033	NO
8	220 kV Chikkodi-Ghataprabha Line 1	37.34	21.11.2013	21.11.2048	NO
9	220 kV Chikkodi-Ghataprabha Line 2		21.11.2013	21.11.2048	NO

* due to non-submission of the date and month of COD of the assets, 1st April has been considered for determining useful life.

33. According to the above table, none of the non-ISTS transmission lines have completed their useful life of 35 years, as on 31.3.2020. Therefore, the transmission charges are worked out as per the new methodology approved by the Commission, considering the useful life of the transmission lines as 35 years.

34. As per the new methodology, the capital cost has been derived taking into consideration the length and configuration of the transmission line, the year of the COD, and the rationalized cost of the year as under:

Asset No.	Name of the Assets	COD	Rationalized Cost/c-km (₹ in lakh)	Length (C-km)	Multi- plication Factor	Gross Value of the Asset (₹ in lakh)
Asset-1	220 kV Sedam – Raichur TPS Line 1 & 2 (D/C - Drake Conductor-Single)	1.4.1993*	34.94	102.60	0.57	2043.60
Asset-2	220 kV Sedam – Shahpur Line (S/C - Drake Conductor-Single)	1.4.2006*	42.53	114.85	0.36	1758.39
Asset-3	220 kV Raichur TPS – Raichur Line 1 (S/C- Drake Conductor-Single)	1.4.1986*	23.07	16.08	0.36	133.56
Asset-4	220 kV Raichur TPS –	1.4.1986*	23.07	17.09	0.36	141.95



	Raichur Line 2 (S/C-Drake Conductor-Single)					
Asset-5	220 kV Chikkodi – Belgaum Line 1 (D/C - Drake Conductor-Single)	27.2.1998	23.24	96.00	0.57	1271.66
Asset- 6	220 kV Chikkodi – Ghataprabha Line 1&2 (D/C - Drake Conductor-Single)	21.11.2013	94.67	37.34	0.57	2015.02

** due to non-submission of the date and month of COD of the assets, 1st April has been considered for determining the useful life.*

35. It is pertinent to mention here that the determination of tariff of the deemed inter-State transmission lines connecting two states, for which the Commercial Operation Date (COD) is earlier than 31.3.2014 and where the audited capital cost information is not available, is required to be determined on the basis of the methodology adopted by the Commission in its order dated 10.5.2024 in Petition No. 88/TT/2017. The Commission approved the benchmark cost on the basis of the transmission lines owned by PGCIL. In the approved methodology, in a similar case, the useful life of the transmission line has been considered as 35 years, and, for the lines more than 35 years old, only O&M Expenses and Interest on Working Capital (IWC) have been decided to be allowed. For the assets, whose COD was on or after 1.4.2014, the tariff is decided to be allowed on the basis of the audited financial capital cost. The relevant portion of para 9 and para 10 of the order dated 10.5.2024 in Petition No. 88/TT/2017 is extracted hereunder:

“9. The Commission, in an order dated 10.5.2024 in Petition No. 88/TT/2017, while approving tariff for eleven transmission lines connecting two States/ deemed ISTS lines owned by the Petitioner for the period 2014-15 to 2018-19, adopted the methodology followed in the case of other States, where the useful life of the transmission lines is considered as 25 years. The relevant portion of the order dated 10.5.2024 is as follows:

“6. We have considered the submissions made by MPPTCL. MPPTCL has claimed transmission tariff for eleven inter-State transmission lines for the 2014-19 tariff period. Commission vide order dated 14.3.2012 in Petition No. 15/SM/2012 had directed 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 to file petitions under the



Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 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. Some of the owners/developers of these lines had filed tariff petitions and accordingly, tariff was allowed for the period from 2011-12 to 2013-14. Further, the owners/developers of these lines were directed to file petitions for determination of tariff for the 2014-19 tariff period.

7. Commission has, in general, observed that petitioner States have been submitting the necessary information, required for determining the annual transmission charges of their inter-state transmission lines, in contrasting manner thereby causing divergence in working out the tariff. In some cases it was observed that the data related to funding and depreciation was not available and in other cases the assets have already completed, or nearing, their useful life. In most of the petitions, the states have expressed their inability in furnishing the audited capital cost of transmission lines where the lines are older. In such a scenario, tariff workings for older assets are believed to be ending in skewed results. It has been observed that the YTC figures emerging out by the existing methodology are on the higher side. Considering these facts, Commission has conceptualized a modified methodology for determining the tariff of States' inter-state transmission lines.

8. The methodology is broadly based on the following: -

- (a) PGCIL's Annual Report data has been used as the reference data; based on which, year wise benchmark cost has been derived.
- (b) Useful life of Transmission Line has been considered as 25 years. Thus, if life is more than or equal to 25 years as on 1.4.2014, only O & M Expenses and Interest on Working Capital (IWC) shall be allowed as per the existing Tariff Regulations, in lieu of complete tariff.
- (c) It is expected that the States do have the audited financial data of recently commissioned (i.e. on or after 1.4.2014) lines.

Tariff Methodology

9. 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 February, 2017) suggests the following: -

	Reference cost of 400 kV S/C TL	` X lakh/ km
1.	400 kV D/C TL	1.39 X
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

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.

10. 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 2004-05 has been corrected by considering the average values of the transmission line costs in the immediate preceding and succeeding years.

11. 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 CERC (Terms & Conditions of Tariff) Regulations, 2014 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 CERC (Terms & Conditions of 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 CERC (Terms & Conditions of Tariff) Regulations, 2014 shall be considered.

(ix) Where the life of TL is more than or equal to 25 years as on 01.04.2014, only O & M expenses and IWC shall be allowed in lieu of complete tariff.

12. 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."

9. *As per the directions of APTEL in judgement dated 14.11.2022 in Appeal No.267 of 2018 and batch matters and the subsequent judgement dated 6.7.2023 in Review Petition No.12 of 2022 and 13 of 2022, we have considered the useful life of the transmission lines as 35 years. Accordingly, we have modified the methodology adopted by us earlier for approving the transmission charges for the transmission lines connecting two States/deemed ISTS lines considering the useful life of the transmission lines as 35 years. For determination of the transmission charges of the transmission assets which have not completed their 35 years of service as on 1.4.2014, the capital cost of the transmission lines is derived from 1979-80 onwards till 31.3.2014. As per the earlier methodology, the capital cost has been approved by the Commission from 1989-90 onwards till 31.3.2014. Further, in the earlier methodology, due to the unavailability of base data for 1989-90, 1990-91, and 1991-92, the average cost of transmission lines has been back derived considering the average cost from 1992-93 onwards up to 2013-14 at a Compound Annual Growth Rate (CAGR) of 5.17%. The methodology for deriving the average cost of transmission lines for 1989-90, 1990-91, and 1991-92 has been extrapolated backward to derive the average cost of transmission lines for 1979-80 to 1988-89. Accordingly, the average capital cost of the transmission lines for 1979-80, 1980-81, 1981-82, 1982-83, 1983-84, 1984-85, 1985-86, 1986-87, 1987-88 and 1988-89 has been back derived by applying the Compound Annual Growth Rate (CAGR) factor of 5.17%. The capital cost of the transmission lines, which have not completed 35 years, is worked out as per the said methodology."*

36. Therefore, we proceed to determine the transmission tariff of the transmission assets for FY 2020-21.

Determination of the Transmission Tariff for FY 2020-21

37. The transmission charges claimed by the Petitioner for the nine non-ISTS transmission lines considered in the instant Petition are as follows:



220 kV Sedam-Raichur TPS line-1 & 2:

(₹ in lakh)

Particulars	2020-21
Depreciation	0.00
Interest on Loan	0.00
Return on Equity	45.02
Interest on Working Capital	6.73
O&M Expenses	269.04
Total	320.79

220 kV Sedam-Shahpur line:

(₹ in lakh)

Particulars	2020-21
Depreciation	15.86
Interest on Loan	0.00
Return on Equity	16.38
Interest on Working Capital	3.83
O&M Expenses	154.74
Total	190.81

220 kV Raichur TPS-Raichur line-1:

(₹ in lakh)

Particulars	2020-21
Depreciation	0.00
Interest on Loan	0.00
Return on Equity	2.79
Interest on Working Capital	0.59
O&M Expenses	25.06
Total	28.44

220 kV Sedam-Raichur TPS line-2:

(₹ in lakh)

Particulars	2020-21
Depreciation	10.78
Interest on Loan	3.48
Return on Equity	11.50
Interest on Working Capital	1.05
O&M Expenses	26.34
Total	53.16

220 kV Chikodi -Belgaum line-1 & 2:

(₹ in lakh)

Particulars	2020-21
Depreciation	0.00
Interest on Loan	0.00
Return on Equity	53.08
Interest on Working Capital	6.81
O&M Expenses	261.78
Total	321.67



220 kV Chikkodi- Ghataprabha line-1 & 2:

(₹ in lakh)	
Particulars	2020-21
Depreciation	83.63
Interest on Loan	33.01
Return on Equity	89.24
Interest on Working Capital	6.38
O&M Expenses	113.36
Total	325.62

Additional Capital Expenditure (ACE)

38. The Petitioner has claimed the ACE amounting to ₹1.96 lakh and ₹162.75 lakh against 220 kV Sedam-Shahpur line and 220 kV Chikodi -Ghataprabha Line 1 & 2 for FY 2020-21, respectively, under the computation of ARR for non-ISTS transmission lines. However, it has been observed that the Petitioner has not submitted the details of the work against which the said ACE and the regulation under which the said ACE has been claimed. Due to the non-submission of the details and justification, we are not inclined to allow the ACE claimed by the Petitioner.

39. Since none of the non-ISTS transmission lines have completed their useful life of 35 years, as on 31.3.2020, the transmission charges have been worked out as per the new methodology approved by the Commission, considering the useful life of the transmission lines as 35 years. As per the new methodology, the capital cost has been derived taking into consideration the length and configuration of the transmission lines, the year of the COD, and the rationalized cost of the year as under:

Asset No.	Name of the Assets	COD	Rationalized Cost/c-km (₹ in lakh)	Length (C-km)	Multi-plication Factor	Gross Value of the Asset (₹ in lakh)
Asset-1	220 kV Sedam – Raichur TPS Line 1 & 2 (D/C - Drake Conductor-Single)	1.4.1993*	34.94	102.60	0.57	2043.60
Asset-2	220 kV Sedam – Shahpur Line (S/C - Drake Conductor-	1.4.2006*	42.53	114.85	0.36	1758.39



	Single)					
Asset-3	220 kV Raichur TPS – Raichur Line 1 (S/C-Drake Conductor-Single)	1.4.1986*	23.07	16.08	0.36	133.56
Asset-4	220 kV Raichur TPS – Raichur Line 2 (S/C-Drake Conductor-Single)	1.4.1986*	23.07	17.09	0.36	141.95
Asset-5	220 kV Chikkodi – Belgaum Line 1 (D/C - Drake Conductor-Single)	27.2.1998	23.24	96.00	0.57	1271.66
Asset- 6	220 kV Chikkodi – Ghataprabha Line 1&2 (D/C - Drake Conductor-Single)	21.11.2013	94.67	37.34	0.57	2015.02

* due to non-submission of date and month of COD of the assets, 1st April has been considered for determining the useful life.

40. All the transmission assets, except Asset-6, have already completed 12 years of their useful life as on 1.4.2020. Therefore, the IoL for all the transmission assets, except Asset-6, has not been allowed for FY 2020-21.

41. Further, since none of the transmission assets have completed the 35 years of their useful life as on 1.4.2020, all the components of transmission charges except Interest on Loan (IoL), i.e., Depreciation, Return on Equity (RoE), Operation & Maintenance Expenses (O&M Expenses), and Interest on Working Capital (IWC) have been allowed for all the transmission assets for FY 2020-21. Therefore, we proceed to determine the transmission tariff for the 2014-19 tariff period of the transmission assets.

O&M Expenses:

42. The Petitioner has claimed the following O&M Expenses for the transmission assets for FY 2020-21:

(₹ in lakh)		
Sl. No	Transmission Line	2020-21
1	220 kV Sedam – Raichur TPS Line 1	269.04
2	220 kV Sedam – Raichur TPS Line 2	



3	220 kV Sedam – Shahpur Line	154.74
4	220 kV Raichur TPS – Raichur Line 1	25.06
5	220 kV Raichur TPS – Raichur Line 2	26.34
6	220 kV Chikkodi – Belgaum Line 1 & 2	261.78
8	220 kV Chikkodi – Ghataprabha Line 1 & 2	113.36

43. Regulation 35(3) of the 2019 Tariff Regulations provides as under:

(₹ in lakh)	
Norms for AC and HVDC lines (₹ lakh per km)	2020-21
<i>Single Circuit (Single Conductor)</i>	0.260
<i>Double Circuit (Single Conductor)</i>	0.391

44. We have considered the Petitioner's submissions. It has been observed that the Petitioner has also claimed the O&M charges against the associated bays under the O&M Expenses of the respective non-ISTS transmission lines. As the SRPC has certified the transmission lines only, the tariff is being determined to the transmission lines only in the instant order. The O&M Expenses allowed for the non-ISTS transmission lines are as follows:

Sl. No.	Name of the Assets	Line Length (in km)	Norms as per Regulation 35(3) of the 2019 Tariff Regulations for FY 2020-21	O&M Expenses (₹ in lakh)
1	220 kV Sedam – Raichur TPS Line 1 & 2 (D/C- Drake Conductor-Single)	102.6	0.391	40.11
2	220 kV Sedam – Shahpur Line (S/C - Drake Conductor-Single)	114.85	0.260	29.86
3	220 kV Raichur TPS – Raichur Line 1 (S/C - Drake Conductor-Single)	16.08	0.260	4.18
4	220 kV Raichur TPS – Raichur Line 2 (S/C - Drake Conductor-Single)	17.09	0.260	4.44
5	220 kV Chikkodi – Belgaum Line 1 (D/C - Drake Conductor-Single)	96	0.391	37.53
6	220 kV Chikkodi – Ghataprabha Line 1&2 (D/C- Drake Conductor-Single)	37.34	0.391	14.59

45. Accordingly, the computation of transmission charges for FY 2020-21 in case of Asset-1, Asset-2, Asset-3, Asset-4, Asset-5, and Asset-6 is as under:



(₹ in lakh)

Asset-1	2020-21
Depreciation	23.67
Interest on Loan	0.00
Return on Equity	95.03
Interest on Working Capital	3.30
O&M Expenses	40.11
Total	162.11

(₹ in lakh)

Asset-2	2020-21
Depreciation	20.37
Interest on Loan	0.00
Return on Equity	81.77
Interest on Working Capital	2.65
O&M Expenses	29.86
Total	134.65

(₹ in lakh)

Asset-3	2020-21
Depreciation	1.55
Interest on Loan	0.00
Return on Equity	6.21
Interest on Working Capital	0.28
O&M Expenses	4.18
Total	12.22

(₹ in lakh)

Asset-4	2020-21
Depreciation	1.64
Interest on Loan	0.00
Return on Equity	6.60
Interest on Working Capital	0.30
O&M Expenses	4.44
Total	12.98

(₹ in lakh)

Asset-5	2020-21
Depreciation	14.73
Interest on Loan	0.00
Return on Equity	59.13
Interest on Working Capital	2.56
O&M Expenses	37.53
Total	113.95

(₹ in lakh)

Asset-6	2020-21
Depreciation	106.39
Interest on Loan	52.29
Return on Equity	93.70
Interest on Working Capital	4.13
O&M Expenses	14.59
Total	271.10



Sharing of Transmission Charges

46. With effect from 1.7.2011, the sharing of the transmission charges for the inter-State transmission systems was governed by the provision of the 2010 Sharing Regulations. However, with effect from 1.11.2020, the 2010 Sharing Regulations have been repealed, and the sharing of transmission charges approved in this order for the non-ISTS transmission lines shall be recovered in accordance with the applicable Sharing Regulations as per Regulation 57(2) of the 2019 Tariff Regulation. Further, the transmission charges allowed in this order shall be adjusted against the ARR approved by the State Commission.

47. We observe that once the transmission charges of the non-ISTS lines are included in the ISTS pool, the availability of such lines needs to be verified by the respective RPCs, and the recovery of tariff should be linked with their availability, for which a necessary mechanism may be put in place by the RPC. We direct that the YTC of such intra-State lines shall be included in the PoC pool based on the availability of each of the lines to be certified by the SRPC in terms of the provision under the 2019 Tariff Regulation.

48. We further direct the Petitioner to approach the KERC for the adjustment of such recovery against the ARR of the respective years.

49. To summarise:

(i) The Annual Transmission Charges approved for FY 2021 in respect of the transmission assets are as follows:

	(₹ in lakh)					
	Asset-1	Asset-2	Asset-3	Asset-4	Asset-5	Asset-6
Particulars	2020-21	2020-21	2020-21	2020-21	2020-21	2020-21
AFC Claimed	320.79	190.81	28.44	53.16	321.67	325.62
AFC allowed	162.11	134.65	12.22	12.98	113.95	271.10



50. This order disposes of Petition No. 353/TT/2023 in terms of the above discussions and findings.

sd/-
(Harish Dudani)
Member

sd/-
(Ramesh Babu V.)
Member

sd/-
(Jishnu Barua)
Chairperson

