

CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No.26/TT /2017

Coram :
Shri P.K. Pujari, Chairperson
Dr. M. K. Iyer, Member
Shri I.S. Jha, Member

Date of Order: 19th of August, 2019

In the matter of

Transmission tariff in respect of RVPN owned transmission lines/system connecting with other States and Intervening transmission lines incidental to inter-State transmission of electricity as per Central Electricity Regulatory Commission's order dated 14.3.2012 in Petition No. 15/SM/2012, for inclusion in the POC transmission charges in accordance with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009.

And in the matter of

Rajasthan Rajya Vidyut Prasaran Nigam Limited
Vidyut Bhawan, Jyoti Nagar,
Jaipur - 302005

...Petitioner

Versus

1. Power Grid Corporation of India Ltd.
Saudamini, Plot No. 2, Sector-29,
Near IFFCO Chowk,
Gurgaon-122 001.
2. Haryana Vidyut Prasaran Nigam
Shakti Bhawan, Sector-6,
Panchkula-134109.
3. Haryana Power Purchase Centre
2nd Floor, Shakti Bhawan, Sector-6
Panchkula (Haryana) 134 109
4. M. P. Power Transmission Company Ltd.
Block No. 2, Shakti Bhawan, Rampur,
Jabalpur-482008.
5. M. P. Power Management Co. Ltd. (MPPMCL)
Block No. 11, 1st Floor, Shakti Bhawan,



Parties present : Shri Shubham Arya, Advocate, RRVPNL
Shri Hari Mohan Gupta, RRVPNL
Shri Rajeev Jain, RRVPNL
Shri S.S. Raju, PGCIL
Shri Vivek Kumar Singh, PGCIL
Shri S. K. Venkatesan, PGCIL
Shri Amit Yadav, PGCIL
Shri Zafrul Hasan, PGCIL

ORDER

The petitioner, Rajasthan Rajya Vidyut Prasaran Nigam Ltd. (RRVPNL), has filed the instant petition for determination of transmission tariff in respect of RRVPNL owned transmission lines/system connecting with other States and intervening transmission lines incidental to inter-State transmission of electricity as per Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 for inclusion in the POC transmission charges.

Background

2. The Commission vide order dated 14.3.2012 in Petition No. 15/SM/2012 had directed 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 before it for determination of tariff in accordance with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009. (hereinafter referred to as "the 2009 Tariff Regulations").

3. In compliance of the above directions of the Commission, the petitioner, RRVPNL, had filed the instant petition, being Petition No. 26/TT/2017, for approval of

the transmission tariff of transmission lines/system connecting with other States and intervening transmission lines incidental to inter-State transmission of electricity owned by it for the period 2011-12 to 2013-14 in accordance with the 2009 Tariff Regulations.

4. The Commission vide order dated 18.10.2017 in Petition No. 26/TT/2017 observed as under:

“6. We have considered the submissions made by RRVPNL. RRVPNL has claimed transmission tariff for seven inter-State transmission lines retrospectively for the 2009-14 tariff period. The instant transmission lines are part of the State network and are shared by STU. The State Commission has already granted ARR for the State network for the 2009-14 period which is inclusive of the tariff for the transmission lines covered in the instant petition. As such, RRVPNL has already recovered tariff for these lines. Further, PoC charges for the 2011-14 period have already been processed and recovered. Granting of tariff for these transmission lines afresh by this Commission and inclusion in the PoC charges would lead to revision of the PoC charges retrospectively. Further, it would require revision/adjustment of the ARR already granted by the State Commission for the 2011-14 period. Hence, we are not inclined to allow tariff for these lines retrospectively for the period 2011-14. RRVPNL has already filed the petition claiming tariff for the inter-State transmission lines under its State network for the 2014-19 tariff period under the 2014 Tariff Regulations and will be granted tariff accordingly as per the relevant regulations.

7. In view of the above discussion, tariff is not allowed for the instant assets for the 2011-14 period. As no tariff is allowed in the instant case, we are of the view that there is no need to discuss the issues raised by MPPMCL. The filing fee deposited by RRVPNL in the instant case shall be adjusted in future.....”

5. Being aggrieved by the aforesaid order, petitioner filed Review Petition No. 47/RP/2017 for review and modification of order dated 18.10.2017 in Petition No. 26/TT/2017. In Review Petition, i.e., 47/RP/2017, the petitioner has inter alia submitted as under:

“4. The Review Petitioner has submitted that in Petition No. 213/TT/2013 tariff for 6 inter-State transmission lines was allowed on 18.3.2015, after the expiry of the control period and the same reasoning should have been adopted in Petition No.26/TT/2017 and tariff for seven lines should have been allowed. The Review Petitioner has submitted that the tariff determination process was deferred for want of certification from NRPC. On receipt of certification from the NRPC vide letter dated 9.11.2016, the petitioner filed petition for determination of tariff in respect of the 7 lines in Petition No. 26/TT/2017. The Review Petitioner has further submitted



consumers of the State will suffer financial prejudice and loss if the transmission charges are not determined for the instant seven lines for the control period 2011-14 and allowed to be recovered by RRVPNL”.

6. The Commission after hearing the parties on 27.4.2018 admitted the Review Petition and vide Order dated 18.7.2018 decided to revisit its Order dated 18.10.2017 (passed in Petition No. 26/TT/2017) wherein the Commission held as under:

“12. However, after that Petitioner filed Petition No. 26/TT/2017 supported by NRPC certificate, the petition was rejected on the ground that the control period is over and it would require retrospective revision of the PoC charges. However, in the past, the Commission had determined the tariff even after the expiry of the control period. Since the transmission lines are used for conveying inter-state power, tariff needs to be included in the PoC charges. Otherwise, the Review Petitioner would be deprived of its legitimate charges for use of its transmission lines. Considering the above factors, we are of the view that rejection of the Petition No. 26/TT/2017 needs to be revisited. Accordingly, we withdraw our order rejecting the tariff petition of the Review Petitioner. The Petition No. 26/TT/2017 shall be listed for hearing and tariff of the assets concerned would be determined. The submission of MPPTCL with regard to 132 kV Sheopur-Khandar transmission line shall be dealt with at the time of determination of tariff of the said transmission lines.”

7. Accordingly the petition was listed on 28.2.2019 and after hearing the parties, the Commission reserved the order.

8. Based on the documents available on record and after considering the submissions made by the petitioner and the respondent(s), we proceed to dispose of the claim of the petitioner in the instant Petition in terms of the provisions of the 2009 Tariff Regulations, as stated in the subsequent paragraphs.



9. RRVPNL has sought tariff for the following inter-State transmission lines for the period 2011-14 (1.7.2011 to 31.3.2014) under the 2009 Tariff Regulations for inclusion in the computation of PoC charges:-

S. No.	Particulars of Transmission Line	Voltage Level	Length of Line in CKT KM	COD
1	220 kV S/C Chirawa-Hissar line (Rajasthan-Haryana)	220 kV	118	27.11.2010
2	132 kV S/C Sadulpur (Rajgarh) - Hissar line	132 kV	78	3.10.1959
3	132 kV S/C AmrapuraThedi - Sirsa line	132 kV	80	19.12.1970
4	132 kV S/C Khandar- Sheopur line	132 kV	35.24	5.7.2008
5	220 kV S/C Anta-Kota Line	220 kV	67	1.3.1969
6	220 kV SC RAPP (B)-Kota Line	220 kV	42	1.9.1977
7	220 kV S/C RAPP (B) – RAPP (A) line	220 kV	2	1.9.1977

10. RRVPNL has submitted that these lines are very old lines for which it did not get audited the capital cost, actual repayment schedule and interest rates of loans etc. RRVPNL has submitted that it has incurred considerable capital expenditure on R&M of these lines and as such these lines are performing similar to the new lines. RRVPNL has submitted that for the purpose of tariff calculation, the indicative cost of lines of various configurations owned and operated by the PGCIL given in order dated 18.3.2015 in Petition No. 213/TT/2013 has been considered. RRVPNL has also submitted the ARR approved by the State Commission for the period 2011-14 and its network details.

11. The respondent, Madhya Pradesh Power Management Company Limited (in short - MPPMCL), has submitted that the cost and benefit of 132 kV Sawaimadhopur-Sheopur line has to accrue to MPPMCL and RRVPNL cannot claim

tariff for the said line. MPPMCL has submitted that as per agreement between Madhya Pradesh and Rajasthan, the cost and benefit of Gandhisagar to Kota has to be shared equally between the two states. MPPMCL has submitted that 132 kV S/C Khandar-Sheopur Line, for which yearly transmission charges (in short - YTC) has been claimed in the instant petition, is part of the joint venture project between Rajasthan and Madhya Pradesh under Chambal-Satpura complex and as per inter-State agreements executed between the States, cost and benefit of the said transmission line were to be shared as per allocation of share in the project. However, this fact has not been brought out by RRVPNL in the instant petition.

12. We have examined the admissibility of the assets and the petitioner's claim as per approved methodology as discussed in the succeeding paragraphs.

Admissibility of Assets

13. The petition has been filed in respect of seven lines tabulated above in para-9 for approval of transmission tariff of transmission lines/system connecting with other States and intervening transmission lines incidental to inter-State transmission of electricity for the period 2011-12 to 2013-14 in accordance with the 2009 Tariff Regulations.

14. The tariff of transmission lines owned or controlled by the STU which carry inter-State power is to be dealt as per Section 2(36) of the Electricity Act, 2003. Section 2(36) of the Electricity Act, 2003 defines the ISTS as under:-



“2(36) inter-State transmission system includes-

- (i) any system for the conveyance of electricity by means of main transmission line from the territory of one State to another State;*
- (ii) the conveyance of electricity across the territory of any intervening State as well as conveyance within the State which is incidental to such inter-State transmission of electricity;*
- (iii) the transmission of electricity within the territory of a State on a system built, owned, operated, maintained or controlled by a Central Transmission Utility;”*

15. The petitioner has submitted that the transmission lines for which the tariff has been prayed in the instant petition satisfy the conditions of ISTS.

16. The STU lines used for carrying inter-State power can be considered for inclusion in the PoC charges only if it is certified by RPC in terms of para 2.1.3 of the Annexure-I to Central Electricity Regulatory Commission (Sharing of inter-State Transmission Charges and Losses) Regulation, 2010, which reads as under :-

“The line-wise YTC of the entire network shall be provided by the Transmission Licensees. In case a line is likely to be commissioned during the Application Period, the data in respect of the same, along with the anticipated COD will be provided by the CTU/ Transmission Licensee to the Implementing Agency.

For the determination of the transmission charges based on Hybrid Methodology applicable in the next Application Period, all the above data shall be provided to the Implementing Agency as per the timelines specified by the Implementing Agency.

Overall charges to be allocated among nodes shall be computed by adopting the YTC of transmission assets of the ISTS licensees, deemed ISTS licensees and owners of the non-ISTS lines which have been certified by the respective Regional Power Committee (RPC) for carrying inter-State power. The Yearly Transmission Charge, computed for assets at each voltage level and conductor configuration in accordance with the provisions of these regulations shall be calculated for each ISTS transmission licensee based on indicative cost provided by the Central Transmission Utility for different voltage levels and conductor Page 17 of 21 configurations. The YTC for the RPC certified non-ISTS lines which carry inter-State power shall be approved by the Appropriate Commission.

In case line-wise tariff for the RPC certified non-ISTS lines has not been specified by the Appropriate Commission, the tariff as computed for the relevant voltage level and conductor configuration shall be used. The methodology for computation of tariff of individual asset shall be similar to the methodology adopted for the ISTS transmission.”



17. The Petitioner has submitted WRPC certification letters dated 8.6.2011 with respect to transmission lines at Sl. 5-7 and 9.11.2016 with respect to transmission lines at Sl. 1-4 tabulated in para-9 above.

18. We have considered the submissions of the petitioner and carefully perused the records placed before us. On basis of WRPC having granted certification for transmission lines, the same have been considered for tariff purpose for tariff determination:

S. No.	Particulars of Transmission Line	COD
1	220 kV S/C Chirawa-Hissar line (Rajasthan-Haryana)	27.11.2010
2	132 kV S/C Sadulpur (Rajgarh) - Hissar line	3.10.1959
3	132 kV S/C AmrapuraThedi - Sirsa line	19.12.1970
4	132 kV S/C Khandar- Sheopur line	5.7.2008
5	220 kV S/C Anta-Kota Line	1.3.1969
6	220 kV SC RAPP (B)-Kota Line	1.9.1977
7	220 kV S/C RAPP (B) – RAPP (A) line	1.9.1977

19. Since the Central Electricity Regulatory Commission (Sharing of inter-State Transmission Charges and Losses) Regulations, 2010 came into force from 1st July, 2011, YTC for these transmission lines have been calculated for the year 2011-12 (1.7.2011 to 31.3.2012), 2012-13 and 2013-14.

Length of Line in Ckt. KM

20. The line length claimed by the petitioner in the instant asset is as under:

Sl. No.	Assets	Particulars of the Transmission Line	COD	Line length in Ckt.Km claimed
1	Asset-1	220 kV S/C Chirawa-Hissar line	27.11.2010	118
2	Asset-2	132 kV S/C Sadulpur (Rajgarh) - Hissar line	3.10.1959	78
3	Asset-3	132 kV S/C AmrapuraThedi - Sirsa line	19.12.1970	80
4	Asset-4	132 kV S/C Khandar- Sheopur line	5.7.2008	35.24
5	Asset-5	220 kV S/C Anta-Kota Line	1.3.1969	67
6	Asset-6	220 kV SC RAPP (B)-Kota Line	1.9.1977	42
7	Asset-7	220 kV S/C RAPP (B) – RAPP (A) line	1.9.1977	2
Total				422.24



21. MPPTCL in affidavit dated 23.6.2017 has made submissions that petitioner, RRVPNL has made loop in loop out (LILO) arrangement on 132 kV Sheopur-Madhapur line at Khandar in Rajasthan, and renamed the above line as 132 kV Khandar-Sheopur line and the same is now included in this petition. RRVPNL has claimed transmission tariff for 35.24 Km of 132kV Khandar-Seopur line whereas, only 12.262 Km of above line from 132 kV S/s Khandarupto MP-Rajasthan border is under the administrative jurisdiction of the petitioner, RRVPNL. The remaining 35.03 Km length of line is under the jurisdiction of MPPTCL. Therefore, MPPTCL has submitted that only 12.262 Km may be considered for the purpose of calculation of PoC Charges.

22. We have considered the submissions made by the petitioner and the respondent, MPPTCL. Keeping in view the jurisdiction on line lengths, the details of line lengths claimed and considered for tariff purpose in Ckt. Kms. is as under:

S. No.	Assets	Name of Line	Line length in Ckt.Km claimed	Line length in Ckt. Km considered
1	Asset-1	220 kV S/C Chirawa-Hissar line	118	118
2	Asset-2	132 kV S/C Sadulpur (Rajgarh) - Hissar line	78	78
3	Asset-3	132 kV S/C AmrapuraThedi - Sirsa line	80	80
4	Asset-4	132 kV S/C Khandar- Sheopur line	35.24	12.262
5	Asset-5	220 kV S/C Anta-Kota Line	67	67
6	Asset-6	220 kV SC RAPP (B)-Kota Line	42	42
7	Asset-7	220 kV S/C RAPP (B) – RAPP (A) line	2	2
Total			422.24	399.262

Procedure for calculating YTC for the seven transmission lines

23. In order dated 15.10.2015 in Petition No.217/TT/2013, in the absence of capital cost of the assets, we have considered the indicative cost of lines of various



configurations owned and operated by PGCIL for arriving at the capital cost of the transmission lines of MPPTCL. We adopt the same methodology for computation of capital cost as per assumptions as below:-

a) Indicative cost of 400 kV D/C Quad Moose transmission line has been taken as base and indicative cost of lines with configurations other than 400 kV D/C Quad Moose have been expressed with reference to the indicative cost of 400 kV D/C Quad Moose (i.e. by dividing indicative cost of the 400 kV D/C Quad Moose line by the indicative cost of line of other configurations).

b) The indicative data of PGCIL is for voltage level upto 132 kV, but in the case of lines of 66 kV level, it has been added to 132 kV level and considered such derived indicative cost of 132 kV level as indicative cost for all transmission lines having voltage level of 132 kV and below.

24. Accordingly, the yearly break up of indicative cost of various configurations owned and operated by PGCIL is given hereunder:

For Financial Year - 2011-12:

S. No	Line Type	Cost (₹ Lac/KM)	Cost per Circuit	Coefficient	Ratio w.r.t. “g”
(a)	(b)	(c)	(d)	(e)	(f)
1.	± 500 KV HVDC	0.00	0.00	a	0.00
2.	±800 KV HVDC	0.00	0.00	b	0.00
3.	765 KV D/C	315.25	157.63	c	0.64
4.	765 KV S/C	159.25	159.25	d	0.63
6	400 KV D/C Twin-Moose	109.50	54.75	e	1.84
7	400 KV D/C Quad. Moose	202.00	101.00	f	1.00
8	400 KV S/C Twin-Moose	74.25	74.25	g	1.36
9	220 KV D/C	59.50	29.75	h	3.39
10	220 KV S/C	37.00	37.00	i	2.73
11	132 KV D/C	46.75	23.38	j	4.32
12	132 KV S/C	28.50	28.50	k	3.54



For Financial Year - 2012-13:

S. No.	Line Type	Cost (₹ Lac/KM)	Cost per Circuit	Coefficient	Ratio w.r.t. "g"
(a)	(b)	(c)	(d)	(e)	(f)
1.	± 500 KV HVDC	0.00	0.00	a	0.00
2.	±800 KV HVDC	0.00	0.00	b	0.00
3.	765 KV D/C	357.00	178.50	c	0.63
4.	765 KV S/C	179.20	179.20	d	0.63
6	400 KV D/C Twin-Moose	122.60	61.30	e	1.83
7	400 KV D/C Quad. Moose	224.80	112.40	f	1.00
8	400 KV S/C Twin-Moose	84.20	84.20	g	1.33
9	220 KV D/C	67.80	33.90	h	3.32
10	220 KV S/C	41.40	41.40	i	2.71
11	132 KV D/C	53.00	26.50	j	4.24
12	132 KV S/C	32.40	32.40	k	3.47

For Financial Year 2013-14:

S. No.	Line Type	Cost (₹ Lac/KM)	Cost per Circuit	Coefficient	Ratio w.r.t. "g"
(a)	(b)	(c)	(d)	(e)	(f)
1.	± 500 KV HVDC	0.00	0.00	a	0.00
2.	±800 KV HVDC	0.00	0.00	b	0.00
3.	765 KV D/C	412.00	206.00	c	0.56
4.	765 KV S/C	179.80	179.80	d	0.65
6	400 KV D/C Twin-Moose	130.40	65.20	e	1.78
7	400 KV D/C Quad. Moose	232.60	116.30	f	1.00
8	400 KV S/C Twin-Moose	87.00	87.00	g	1.34
9	220 KV D/C	61.40	30.70	h	3.79
10	220 KV S/C	37.80	37.80	i	3.08
11	132 KV D/C	48.40	24.20	j	4.81
12	132 KV S/C	30.00	30.00	k	3.88



25. After getting ratio with respect to 400 kV D/C Quad Moose, YTC per ckt. km. of 400 kV D/C Quad Moose transmission line has been calculated as follows:

{YTC per ckt. Km 400 kV D/C Quad Moose}	=	ARR for FY.....in ₹
		[(Length of 500 kV HVDC/a) + (Length of 800 kV HVDC/b) + (Length of 765 kV DC/c) + (Length of 765 kV SC/d) + (Length of 400 kV DC TM /e) + (Length of 400 kV DC QM/f) + (Length of 400 kV SC TM /g) + (Length of 220 kV DC /h) + (Length of 220 kV SC /i) + (Length of 132 kV DC /j) + (Length of 132 kV SC /k)]

(value of a, b, c, d, e, f, g, h, i, j & k and length in ckt. km. has been given in preceding paragraphs above.)

(DC- Double circuit, SC- Single circuit, QM- Quad Moose, TM- Twin Moose)

26. As the tariff of the lines owned by STU has already been determined by the State Electricity Regulatory Commission, we have not examined the same for consideration of PoC calculations. We have considered the ARR of the STU as approved by the State Electricity Regulatory Commission and have adopted the methodology as discussed in the above paragraphs of this order for the purpose of calculation of PoC charges and apportionment of transmission lines and charges to the transmission system of different configurations of the STU. This methodology has been adopted uniformly for the lines owned by other STUs used for inter-State transmission of power duly certified by respective RPCs for the purpose of inclusion in the PoC mechanism.

27. The petitioner has submitted the actual total line length and configuration. As per the information submitted by the petitioner i.e. line length in Ckt. km and ARR approved by RERC for the year 2011-12, 2012-13 and 2013-14 and PoC cost data



for the respective years, YTC for the assets for the period 1.7.2011 to 31.3.2012 and for the years 2012-13 and 2013-14 has been calculated as under:

For 2011-12:

Total True-up ARR approved by the State Commission = Rs. **15627400000/-**

S. NO.	Asset	For entire System of RVPNL		
		Line Length (ckt. Km)	YTC (per ckt. Km)	YTC in Rs.
1	765 KV S/C	0	0.0	0.0
2	400 KV S/C	2782.35	1147278.90	3192131433.95
3	220 KV S/C	10902.42	571708.00	6233000751.13
4	132 KV S/C	14084.23	440369.68	6202267814.92
				15627400000.00

For FY 2012-13:

Total True-up ARR approved by the State Commission = Rs. **20219800000/-**

S. NO.	Asset	For entire System of RVPNL		
		Line Length (ckt. Km)	YTC (per ckt. Km)	YTC in Rs.
1	765 KV S/C	0	0.0	0.0
2	400 KV S/C	2961.86	1423737.13	4216910067.95
3	220 KV S/C	11474.20	700032.27	8032310302.01
4	132 KV S/C	14548.80	547851.34	7970579630.04
				20219800000.00

For FY 2013-14:

Total True-up ARR approved by the State Commission = Rs. **19737400000/-**

S. NO.	Asset	For entire System of RVPNL		
		Line Length (ckt. Km)	YTC (per ckt. Km)	YTC in Rs.
1	765 KV S/C	212.75	2919403.71	621103139.17
2	400 KV S/C	3148.64	1412614.70	4447815143.00
3	220 KV S/C	12020.56	613756.73	7377699609.13
4	132 KV S/C	14967.47	487108.52	7290782108.70
				19737400000.00



YTC of the seven transmission lines

28. YTC per Ckt. Km for 220 kV S/C and 132kV S/C line considered for RRVPNL lines is as under:-

(in Rs.)				
Lines	Year	2011-12	2012-13	2013-14
220 KV S/C	YTC	571708.00	700032.27	613756.73
132 KV S/C	YTC	440369.68	547851.34	487108.52

29. YTC of the seven transmission lines calculated on the methodology discussed above is as follows:-

(in Rs.)					
Assets	Particulars of Transmission Line	Length (Ckt km)	2011-12* (1.7.2011 to 31.3.2012)	2012-13	2013-14
Asset-1	220 kV S/C Chirawa-Hissar line (Rajasthan-Haryana)	118	50596158	82603808	72423294
Asset-2	132 kV S/C Sadulpur (Rajgarh) - Hissar line	78	25761626	42732405	37994464
Asset-3	132 kV S/C AmrapuraThedi - Sirsa line	80	26422181	43828108	38968681
Asset-4	132 kV S/C Khandar- Sheopur line	12.262	4049860	6717753	5972925
Asset-5	220 kV S/C Anta-Kota Line	67	28728327	46902162	41121701
Asset-6	220 kV SC RAPP (B)-Kota Line	42	18008802	29401355	25777783
Asset-7	220 kV S/C RAPP (B) – RAPP (A) line	2	857562	1400065	1227513
	Total Allowed	399.262	154424516	253585656	223486361

(*YTC for 9 months has been considered as per the 2010 Sharing Regulation, which came into force from 1.7.2011)

Sharing of Transmission Charges

30. The annual transmission charges allowed for the assets covered in the instant petition shall be considered in YTC as per the Sharing of Inter-State Transmission Charges and Losses Regulations, 2010 and shall be adjusted against the ARR of the petitioner as approved by the State Commission.

Sd/-
(I. S. Jha)
Member

Sd/-
(Dr. M. K. Iyer)
Member

Sd/-
(P. K. Pujari)
Chairperson

