

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 217/TT/2013

Coram:

**Shri Gireesh B. Pradhan, Chairperson
Shri A.K. Singhal, Member
Shri A.S. Bakshi, Member**

Date of Hearing : 04.06.2015

Date of Order : 15.10.2015

In the matter of:

Approval under Regulation 86 of CERC (conduct of Business) Regulations' 1999 and CERC (Terms and Conditions of Tariff) Regulations'2009 for determination of Transmission Tariff for the EHV Lines belonging to the Petitioner, for inclusion of these Assets in computation of Point of Connection, Transmission charges & Losses under CERC (sharing of Inter-State Transmission Charges and Losses), Regulations, 2010.

And in the matter of:

Madhya Pradesh Power Transmission Company Limited (MPPTCL)
Block No. 2, Shakti Bhawan,
Rampur, Jabalpur-482 008 (MP)

.....**Petitioner**

Vs

1. NTPC Limited,
NTPC Bhawan, Scope Complex,
7, Institutional Area, Lodhi Road,
New Delhi-110 003
2. Madhya Pradesh Power Trading Company Limited,
Shakti Bhawan, Rampur,
Jabalpur-482 008 (MP)
3. Maharashtra State Electricity Distribution Company Limited,
(Renamed as Madhya Pradesh Power Management Company Limited,)
Prakashgad, 4th floor,
Andehri (East), Mumbai-400 052
4. Gujarat Urja Vikas Nigam Limited,
Sardar Patel Vidyut Bhawan,
Race Course Road, Vadodara-390 007



5. Electricity Department, Government of Goa,
Vidyut Bhawan, Panaji,
Near Mandvi Hotel, Goa-403 001
6. Electricity Department,
Administration of Daman and Diu,
Daman-396 210
7. Electricity Department,
Administration of Dadra Nagar Haveli,
U.T. Silvassa-396 230
8. Chhattisgarh State Electricity Board,
P.O. Sunder Nagar, Dangania,
Raipur-492 013
9. Madhya Pradesh Audyogik Kendra,
Vikas Nigam (Indore) Limited,
3/54, Press Complex, Agra-Bombay Road
Indore-452 008

.....Respondents

For petitioner : Shri Vincent D'souza, MPPTCL

For respondents : None

ORDER

The petitioner, Madhya Pradesh Power Transmission Company Limited (MPPTCL) is a company registered under Companies Act, 1956 for the purpose of undertaking the transmission activities in the State of Madhya Pradesh. It has been declared as the State Transmission Utility (STU) by the Government of Madhya Pradesh and being a STU is a deemed transmission licensee under Section 14 of the Electricity Act, 2003 (hereinafter referred to as "the Act"). The instant petition has been filed by MPPTCL for approval of the annual transmission charges of the transmission assets covered in the petition under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations,



2009 (hereinafter "2009 Tariff Regulations") in compliance of the Commission's order dated 14.3.2012 in Petition No.15/SM/2012.

2. The Commission vide order dated 14.3.2012 in Petition No. 15/SM/2012 gave the following directions:-

"3. Inter-State Transmission system has been defined under Section 2(36) of the Act 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;"

4. Under the above provision, the conveyance of electricity from territory of one state to another State is also considered to be a part of inter-State transmission system. In terms of Section 79(1)(d) of the Act, the tariff of these lines are also required to be determined by the Central Commission.

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").

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.

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. Nine transmission lines of MPPTCL were identified as inter-State transmission lines in order dated 14.3.2012 in Petition No. 15/SM/2012 and MPPTCL was directed to file tariff petition for the following nine transmission lines for the purpose of inclusion in the PoC charges:-

S. No.	From	To	Voltage Level (kV)	Connecting States
1	Malanpur	Auraiya	220	Madhya Pradesh-Uttar Pradesh (S. No. 10 of Annexure under Inter Regional of order dated 14.3.2012)
2	Mehgaon	Auraiya	220	Madhya Pradesh-Uttar Pradesh (S. No. 11 of Annexure under Inter Regional of order dated 14.3.2012)
3	Badod	Kota	220	Madhya Pradesh-Rajasthan (S. No. 12 of Annexure under Inter Regional of order dated 14.3.2012)
4	Badod	Modak	220	Madhya Pradesh-Rajasthan (S. No. 13 of Annexure under Inter Regional of order dated 14.3.2012)
5	Kalmeshwar	Pandhurna	220	Madhya Pradesh-Maharashtra (S. No. 1 of Annexure under WR of order dated 14.3.2012)
6	Kotmilkala-	Amarkantak - Ckt. 1	220	Madhya Pradesh-Chhattisgarh (S. No. 2 of Annexure under WR of order dated 14.3.2012)
7	Kotmilkala-	Amarkantak -Ckt. 2	220	Madhya Pradesh-Chhattisgarh (S. No. 3 of Annexure under WR of order dated 14.3.2012)
8	Sardar Sarovar	Rajgarh-Ckt.1	400	Madhya Pradesh-Gujarat (S. No. 10 of Annexure under WR of order dated 14.3.2012)
9	Sardar Sarovar	Rajgarh-Ckt.2	400	Madhya Pradesh-Gujarat (S. No. 11 of Annexure under WR of order dated 14.3.2012)

4. The petitioner has submitted the date of commercial operation and background of the instant transmission lines and details are as follows:-

S. No.	Name of Line	Connecting States	COD	Background regarding cost determination
1	220 kV Malanpur-Auraiya	Madhya Pradesh-Uttar Pradesh	23.1.1993	Auraiya-Mehgaon DC DS line was erected on



				23.1.1993, whereas Gwalior-Malanpur-Mehgaon was erected on 17.12.1989. The cost of Auraiya-Mehgaon line (for one circuit 50% cost) plus cost of length from Malanpur to Mehgaon of Gwalior-Malanpur-Mehgaon line
2	220 kV Mehgaon-Auraiya	Madhya Pradesh-Uttar Pradesh	23.1.1993	Auraiya-Mehgaon DC DS line was erected on 23.1.1993. 50% cost is taken for one circuit and the cost of LILO arrangements at Mehgaon Sub-station is added.
3	220 kV Badod-Kota	Madhya Pradesh-Rajasthan	12.8.1977	Ujjain-Badod-Kota DCSS line (upto MP border was erected on 12.8.1977 out of which cost of line length from Badod-Kota (upto MP border) along with cost of length of LILO arrangement at Badod Sub-station is considered.
4	220 kV Badod-Modak	Madhya Pradesh-Rajasthan	27.12.1988	Ujjain-Badod-Kota line was completed on 27.12.1988. Cost of portion from Badod to Modak (upto MP border) along with cost of length of LILO arrangement at Badod completed on 14.1.2009 is considered.
5	220 kV Kalmeshwar-Pandhurna	Madhya Pradesh-Maharashtra	1972	Sarni-Ambajhiri DCSS line was completed in 1972. Cost of portion from Pandhurna to MP border together with cost of 50% portion of length of LILO at Pandhurna completed on 22.11.2003 is considered.
6	220 kV Kotmilkala-Amarkantak-Ckt. 1	Madhya Pradesh-Chhattisgarh	March, 1975	Cost of portion of Amarkantak-Korba line from Amarkantak upto MP border is considered as on bifurcation of the State of Madhya Pradesh and Chhattisgarh the portion came under ownership of MPSEB (now under



				MPPTCL)
7	220 kV Kotmilkala-Amarkantak-Ckt. 2	Madhya Pradesh-Chhattisgarh	July, 1979	Cost of portion of second circuit of Amarkantak-Korba line from Amarkantak upto MP border is considered as on bifurcation of the State of Madhya Pradesh and Chhattisgarh the portion came under ownership of MPSEB (now under MPPTCL)
8	400 kV Sardar Sarovar-Rajgarh-Ckt.1	Madhya Pradesh-Gujarat	20.10.2004	Nagda-Rajgarh-Sardar Sarovar DCDS line was completed on 20.10.2014. Cost of portion of one circuit from Rajgarh to Sardar Sarovar is considered but without the cost of LILO at Rajgarh Sub-station as the same is under the ownership of PGCIL
9	400 kV Sardar Sarovar-Rajgarh-Ckt. 2	Madhya Pradesh-Gujarat	20.10.2004	Cost of portion of second circuit from Rajgarh to Sardar Sarovar out of Nagda-Rajgarh-Sardar Sarovar DCDS line is considered but without the cost of LILO at Rajgarh Sub-station as the same is under the ownership of PGCIL

5. Madhya Pradesh Power Trading Company Limited renamed as Madhya Pradesh Power Management Company Limited (MPPMCL), Respondent No. 2 has submitted in its reply dated 9.7.2015 that the petitioner has not included Bhilai-Seoni and 400 kV Seoni-Sarni lines in the petition. MPPMCL has further submitted that these two lines were considered as inter-state transmission lines between the State of Chhattisgarh and the State of Madhya Pradesh in the Commissions' order dated 20.2.2012 in Petition No. 193/MP/2012, which was upheld by the Hon'ble Appellate Tribunal for Electricity vide order dated 18.2.2015 in Appeal No.



95/2014. As such, it is prudent to consider these two lines also, belonging to the petitioner, in the instant petition. The petitioner in its rejoinder dated 29.6.2015 has submitted that the Commission may also consider to direct the Regional Power Committee and implementing agency of PoC charges to include all such lines belonging to the petitioner.

6. We have considered the submissions of both the respondent and the petitioner. 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 is extracted hereunder:-

“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 configuration. 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



licensees and shall be based on ARR of the STU as approved by the respective State Commission.

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 Web Net 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.”

7. We have heard the representatives of the petitioner and have perused the material on record. We proceed to approve the annual fixed charges in respect of the assets covered in the petition.

No. of assets to be covered

8. The petition has been filed in response to the Commission’s directions for determination of tariff of transmission lines owned or controlled by the STU which carry inter-State power. Section 2(36) of the 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;”

9. The petitioner has submitted that the nine transmission lines identified by the Commission satisfy the conditions of ISTS. It may be noted that 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 Annexure to Central Electricity Regulatory Commission (Sharing of inter-State Transmission Charges and Losses) Regulations, 2010 as discussed at para-6.

10. Nine transmission lines were included in the Commission’s order dated 14.3.2012 in Petition No. 15/SM/2012, which are being considered in the instant petition for grant of annual transmission charges. Further, since the Central Electricity Regulatory Commission (Sharing of inter-State Transmission Charges and Losses) Regulations, 2010 came into force with effect from 1st July, 2011, Yearly Transmission Charges (YTC) for these nine transmission lines have been calculated for the year 2011-12 (1.7.2011 to 31.3.2012), 2012-13 and 2013-14.

11. The hearing in the instant petition was held on 4.6.2014. The Commission vide letter dated 17.6.2014 directed the petitioner to submit the following:-

- a) Capital cost, duly certified by an auditor, if available;
- b) Funding pattern of the assets, i.e. the actual debt and equity considered towards the transmission assets as on date of commercial operation;
- c) Repayment schedule and interest rates of the loan(s) availed as per Form-13 with supporting documents;
- d) Cumulative depreciation against the assets as on 31.3.2012;
- e) Details of ARR approved by the SERC for FY 2009-10, 2010-11, 2011-12, 2012-13 and 2013-14 and details as per Table given herein below, separately for the respective years, containing total amount approved for the respective years:-



(FY _____) ARR _____		(₹ lakh)
S. No.	Line Type	Length* (Ckt.- Km)
1.	+500 kV HVDC	
2.	+800 kV HVDC	
3.	765 kV D/C	
4.	765 kV S/C	
5.	400 kV D/C	
6.	400 KV D/C Quad. Moose	
7.	400 kV S/C	
8.	220 kV D/C	
9.	220 kV S/C	
10.	132 kV D/C	
11.	132 kV S/C	
12.	66 kV	

*Total length in the State for which ARR has been approved

f) In case norms for O&M have not been finalized by the SERC, actual audited O&M expenses for that fiscal year may be furnished.

12. The CTU was also directed to provide latest available indicative cost for the type of lines in the above table.

13. The petitioner vide affidavit dated 28.6.2014, 29.6.2015 and letter dated 9.9.2015 submitted that the EHV lines included in the petition have been commissioned/ capitalised long ago, under the functioning of the integrated MPSEB when the practice of Auditors certificate did not exist. The petitioner also submitted the ARR approved by the MPERC for 2009-10, 2010-11, 2011-12, 2012-13 and 2013-14 and they are as below:-

S. No.	Year	₹ in crores	Remarks
1.	2009-10	1087.08	As per True-up order dated 6.8.2012
2.	2010-11	1370.73	As per True-up order dated 2.2.2013
3.	2011-12	1550.23	As per True-up order dated 11.11.2013
4.	2012-13	1701.18	As per True-up order dated 21.8.2014
5.	2013-14	1923.92	As per True-up order dated 28.4.2015



14. The petitioner further submitted the voltage-wise length of line in Ckt. Km and they are as follows:-

S. No.	Voltage	Configuration	Ckt. km				
			2014-15	2013-14	2012-13	2011-12	2010-11
1.	400 kV	DCDS	2421.15	2193.76	1794.45	1689.33	1689.33
		SCSS	653.30	653.30	653.68	653.68	653.68
		Total	3074.45	2847.06	2448.13	2343.01	2343.01
2.	220 kV	DCDS	10357.03	10015.91	9909.60	9740.04	9528.68
		SCSS	1444.05	1444.05	1423.37	1345.37	1327.81
		Total	11801.083	11459.954	11332.973	11085.409	10856.487
3.	132 kV	DCDS	7298.26	6812.54	6695.07	5896.82	5866.23
		DCSS	5089.42	4911.62	4414.13	4766.16	4375.93
		SCSS	2941.77	2978.60	2970.25	3027.25	3027.25
		Total	15329.45	14702.76	14079.444	13690.228	13269.404
Grand Total			30204.98	29009.77	27860.547	27118.65	26468.90

15. However, the petitioner submitted that the capital cost has been worked out on proportionate basis and the Ckt. length of line is considered to determine the proportionate cost of the line under consideration. The details of proportionate capital cost submitted in respect of these nine lines are as under:-

S. No.	Name of Line	Portion in use as Inter-State (Ckt. Km)	Amount (₹)
1	220 kV Malanpur-Auraiya	147.00	209066926.44
2	220 kV Mehgaon-Auraiya	117.99	182864155.92
3	220 kV Badod-Kota	103.92	25533889.95
4	220 kV Badod-Modak	103.92	28034547.80
5	220 kV Kalmeshwar-Pandhurna	14.103	3646199.58
6	220 kV Kotmilkala-Amarkantak-Ckt.1	39.307	4280741.70
7	220 kV Kotmilkala-Amarkantak-Ckt.2	39.307	3840748.78
8	400 kV Sardar Sarovar-Rajgarh-Ckt.1	113.652	700576827.13
9	400 kV Sardar Sarovar-Rajgarh-Ckt.2	113.652	700576827.13

16. We have considered the line configuration as Double Circuit or Single Circuit line as they physically exist in the system. We have considered Badod-Kota S/C line and Badod-Modak S/C line as 220 kV D/C Badod-Modak/Kota line.



Similarly, 220 kV S/C Kotmilkala-Amarkantak line-Ckt.1 and 2 have been considered as 220 kV D/C Kotmilkala-Amarkantak line and 400 kV S/C Sardar Sarovar-Rajgarh line-Ckt.1 and 2 as 400 kV D/C Sardar Sarovar-Rajgarh line. Hence, the nine lines considered in the order dated 14.3.2012 in Petition No. 15/SM/2012 have been considered as Six lines for the purpose of YTC calculation as detailed below:-

S. No.	Name of Line	Part of line used as Inter-state (Ckt km.)
1	220 kV SC Malanpur-Auraiya Line	147
2	220 kV SC Mehgaon-Auraiya Line	117.99
3	220 kV DC Badod-Modak/Kota line	207.84
4	220 kV SC Kalmeshwar-Pandhurna Line	14.103
5	220 kV DC Kotmilkala-Amarkantak line	78.614
6	400 kV DC Sardar Sarovar-Rajgarh line	227.304

Procedure for calculating YTC for the transmission lines

17. The petitioner submitted that the capital costs of the instant transmission lines are not available. Hence, the indicative cost of lines of various configurations owned and operated by Power Grid Corporation of India Limited (PGCIL) has been considered for the 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.

18. The yearly break-up of indicative cost of various configurations owned and operated by PGCIL is as hereunder:-

For 2013-14

Line Type	Cost (₹ in lakh)	Cost (₹ in lakh/Ckt.)	Co-efficient	
765 kV D/C	412.00	206.00 (A)	a=D/A	0.56
765 kV S/C	179.80	179.80 (B)	b=D/B	0.65
400 kV D/C Twin Moose	130.40	65.20 (C)	c=D/C	1.78
400 kV D/C Quad Moose	232.60	116.30 (D)	d=D/D	1.00
400 kV S/C Twin Moose	87.00	87.00 (E)	e=D/E	1.34
220 kV D/C	61.40	30.70 (F)	f=D/F	3.79
220 kV S/C	37.80	37.80 (G)	g=D/G	3.08
132 kV D/C	48.40	24.20 (H)	h=D/H	4.81
132 kV S/C	30.00	30.00 (I)	i=D/I	3.88

For 2012-13

Line Type	Cost (₹ in lakh)	Cost (₹ in lakh/Ckt.)	Co-efficient	
765 kV D/C	357.00	178.50 (A)	a=D/A	0.63
765 kV S/C	179.20	179.20 (B)	b=D/B	0.63
400 kV D/C Twin Moose	122.60	61.30 (C)	c=D/C	1.83
400 kV D/C Quad Moose	224.80	112.40 (D)	d=D/D	1.00
400 kV S/C Twin Moose	84.20	84.20 (E)	e=D/E	1.33
220 kV D/C	67.80	33.90 (F)	f=D/F	3.32
220 kV S/C	41.40	41.40 (G)	g=D/G	2.71
132 kV D/C	53.00	26.50 (H)	h=D/H	4.24
132 kV S/C	32.40	32.40 (I)	i=D/I	3.47

For 2011-12

Line Type	Cost (₹ in lakh)	Cost (₹ in lakh/Ckt.)	Co-efficient	
765 kV D/C	315.25	157.625 (A)	a=D/A	0.64
765 kV S/C	159.25	159.25 (B)	b=D/B	0.63
400 kV D/C Twin Moose	109.50	54.75 (C)	c=D/C	1.84
400 kV D/C Quad Moose	202.00	101.00 (D)	d=D/D	1.00
400 kV S/C Twin Moose	74.25	74.25 (E)	e=D/E	1.36
220 kV D/C	59.50	29.75 (F)	f=D/F	3.39
220 kV S/C	37.00	37.00 (G)	g=D/G	2.73
132 kV D/C	46.75	23.375 (H)	h=D/H	4.32
132 kV S/C	28.50	28.50 (I)	i=D/I	3.54



19. 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:-

$$\text{YTC per ckt km 400 kV D/C Quad Moose} \left\{ \begin{array}{l} \text{ARR for FY.....in ₹} \\ \text{(Length of 765 kV DC/a)+(Length of 765 kV SC/b)+(Length of 400 kV DC TM/c)+(Length of 400 kV DC QM/d)+(Length of 400 kV SC TM/e)+(Length of 220 kV DC/f)+(Length of 220 kV SC/g)+(Length of 132 kV DC/h)+(Length of 132 kV SC/i)} \end{array} \right.$$

*value of a, b, c, d, e, f, g, h & i are as given in para-17 and length in ckt km as given in para-13(iii) of this order.
DC-Double Circuit, SC-Single Circuit, QM-Quad Moose, TM-Twin Moose

20. We have not carried out any due diligence of the tariff of these lines (for consideration of PoC calculations) as the tariff of the lines owned by STU has already been determined by the State Electricity Regulatory Commission. We have considered the ARR of the STU as approved by the State Electricity Regulatory Commission and have adopted the methodology as discussed in para 16 to 18 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.

21. We have considered the submissions of the petitioner. The petitioner has submitted the actual total line length and configuration in Madhya Pradesh system. However, the petitioner has submitted the line length in Ckt. km for 2010-11, 2011-12, 2012-13, 2013-14 and 2014-15 and ARR for 2009-10, 2010-11, 2011-12, 2012-13 and 2013-14.



22. As per the information submitted by the petitioner i.e. line length in Ckt. km and ARR approved by MPERC for 2009-10, 2010-11, 2011-12, 2012-13 and 2013-14 and PoC cost data for the respective years, YTC for the assets for 2011-12, 2012-13 and 2013-14 has been calculated as under:-

For 2011-12:

Total ARR approved by the MPERC= ₹15,50,23,00,000

(in ₹)

S. No.	Asset	For entire system (MP)		
		Line Length (Ckt. km)	YTC (Per ckt. km)	YTC
1	400 kV D/C	1689.33	1009791	1705869398
2	400 kV S/C	653.68	1369442	895176795
3	220 kV D/C	9740.04	682416	918101345
4	220 kV S/C	1345.37	548699	5344349737
5	132 kV D/C	5896.82	431121	2542240605
6	132 kV S/C	7793.41	525644	4096562119
Total				15502300000

For 2012-13:

Total ARR approved by the MPERC= ₹17,01,18,00,000

(in ₹)

S. No.	Asset	For entire system (MP)		
		Line Length (Ckt. km)	YTC (Per ckt. km)	YTC
1	400 kV D/C	1794.45	1067836.48	1916179180.35
2	400 kV S/C	653.68	1466750.93	958785748.14
3	220 kV D/C	9909.60	721181.57	1026508216.73
4	220 kV S/C	1423.37	590532.74	5851943220.35
5	132 kV D/C	6695.07	461625.89	3090617624.77
6	132 kV S/C	7384.38	564402.97	4167766009.65
Total				17011800000.00

For 2013-14:

Total ARR approved by the MPERC= ₹19,23,92,00,000

(in ₹)

S. No	Asset	For entire system(MP)		
		Line length (ckt km)	YTC per ckt km	YTC
1	400 kV D/C	2193.76	1301897.06	2856049683.69
2	400 kV S/C	653.30	1737193.92	1134908790.08
3	220 kV D/C	10015.91	613009.81	6139851083.15
4	220 kV S/C	1444.05	754780.81	1089941225.86
5	132 kV D/C	6812.54	483219.46	3291951894.02
6	132 kV S/C	7890.22	599032.39	4726497323.21
Total				19239200000.00



YTC of the six transmission lines

23. YTC per Ckt. Km for 220 kV S/C and 400 kV S/C line considered for MPPTCL lines is as under:-

	(in ₹)		
Voltage Level	2011-12	2012-13	2013-14
400 kV D/C	1009791	1067836	1301897
200 kV D/C	548699	590533	613010
220 kV S/C	682416	721182	754781

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

	(in ₹)				
S. No.	Line Name	Length (Ckt. km)	2011-12*	2012-13	2013-14
1	220 kV Malanpur-Auraiya Line	147	75236309	106013691	110952779
2	220 kV Mehgaon-Auraiya Line	118	60388654	85092214	89056588
3	220 kV Badod-Kota line	207.84	85531193	122736324	127407959
4	220 kV Kalmeshwar-Pandhurna Line	14.103	7218079	10170824	10644674
5	220 kV Kotmilkala-Amarkantak line	78.614	32351565	46424141	48191153
6	400 kV Sardar Sarovar-Rajgarh line	227.3	172147066	242723504	295926408
Total			432872866	613160698	682179560

*YTC for 9 months has been taken as per Sharing of Inter-State Transmission Charges and Losses Regulations, 2010 which came into force from 1.7.2011.

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



26. This order disposes of Petition No. 217/TT/2013.

sd/-
(A.S. Bakshi)
Member

sd/-
(A.K. Singhal)
Member

sd/-
(Gireesh B. Pradhan)
Chairperson

