

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 168/TT/2016

Coram:

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

Date of Hearing : 15.12.2016

Date of Order : 19.12.2017

In the matter of:

Approval of transmission tariff (YTC) for nine Inter-State Transmission Lines connecting Uttar Pradesh and other neighbouring States (Natural inter-State transmission lines) pertaining to Uttar Pradesh Power Transmission Corporation Ltd (UPPTCL) in Northern Region

1. 220 kV Muzaffarnagar (Nara)-Roorkee line for FY 2011-12 (from 01/07/2011 to 31/03/2012), FY 2012-13, FY 2013-14 and FY 2014-15.
2. 220 kV SC Khodri-Saharanpur-1 Line
3. 220 kV SC Khodri-Saharanpur-2 Line
4. 220 kV SC Bareilly - Pantnagar Line
5. 220 kV DC Sahibabad-Patparganj Line
6. 220 kV SC Noida Sec 62-Gazipur Line
7. 220 kV SC Noida Sec 20-Gazipur Line
8. 220 kV SC Noida Sec 20-BTPS Line
9. 220 kV SC Sahupuri-Pasauli Line

And in the matter of:

Uttar Pradesh Power Transmission Corporation Limited(UPPTCL)
Shakti Bhawan
14-Ashok Marg, Lucknow- 226001

.....**Petitioner**



Vs

Uttar Pradesh Power Corporation Limited(UPPCL)
and others

.....**Respondent**

Parties present : None

ORDER

1. Uttar Pradesh Power Corporation Limited (UPPCL) was formed as a successor entity of the erstwhile Uttar Pradesh State Electricity Board (UPSEB) through the first statutory transfer scheme notified by the State Government of Uttar Pradesh on 14.1.2000 to manage the transmission and distribution business within the state. Subsequently, the State Government notified the second transfer scheme on 12.8.2003 wherein UPPCL retained the transmission, SLDC and Bulk Supply business of the state with itself, while transferring the distribution and retail supply of the state to the four distribution companies. Under this scheme, the role of UPPCL was specified as "Bulk Supply Licensee" as per the licence granted by the Uttar Pradesh Electricity Regulatory Commission (UPERC) and as "State Transmission Utility". Subsequently, the Uttar Pradesh Power Transmission Corporation Limited (UPPTCL), was incorporated under the Companies Act, 1956. Further, Government of Uttar Pradesh vide notification dated 18.7.2007 notified UPPTCL as STU of Uttar Pradesh. Subsequently, on 23.12.2010, the Government of Uttar Pradesh notified the Uttar Pradesh Electricity Reforms Scheme, 2010 which provided for the transfer of assets and liabilities from UPPCL to UPPTCL. The UPPTCL is entrusted with the business of transmission of electrical energy to various utilities within the state of Uttar Pradesh.



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

“Xxxx

Xxxx

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.

Xxxx

Xxxx”

Accordingly, UPPTCL had filed petition no.286/TT/2013 for determination of tariff for inclusion in PoC charges as indicated below-

Sl. No	Asset	S/C or D/C	Voltage (kV)	No. of Bays maintained by UPPTCL	Line Length (ckt. km.)	Remarks (Ownership with UPPTCL) Km
1	400 kV Roorkee-Muzaffarnagar	S/C	400	1	70.80	—
2	220 kV SC Khodri-Saharanpur-1 Line	S/C	220	1	83.33	83.33
3	220 kV SC Khodri-Saharanpur-2 Line	S/C	220	1	81.05	81.05
4	400 kV Moradabad-Kashipur Line	S/C	400	1	110.885	
5	220 kV SC Bareilly-Pantnagar Line	S/C	220	1	5.501	5.501
6	220 kV DC Sahibabad-Patparganj Line	D/C	220	2	7.002	7.002
7	220 kV SC Noida Sec 62-Gazipur Line	S/C	220	1	3.00	3.00



8	220 kV Bharatpur-Agra Line	S/C	220	1	49.00	—
9	220 kV SC Noida Sec 20-Gazipur Line	S/C	220	-	4.354	4.354
10	220 kV SC Noida Sec 20 BTPS Line	S/C	220	1	13.303	13.303
11	220 kV SC Sahupuri-Pasauli Line	S/C	220	1	72	36.70

3. UPPTCL had also filed additional affidavit for inclusion of similar natural ISTS line owned & maintained by UPPTCL namely, 220 kV Muzaffarnagar (Nara)-Roorkee line under the said Petition no. 286/TT/2013 as the same was missed out in the list of lines in Commission's order dated 14.03.2012 in petition no. 15/SM/2012.

The Commission, vide order dated 15.02.2016 in petition no. 286/TT/2013 determined and allowed the annual transmission charges to be considered in YTC as per Sharing of inter-State Transmission Charges and Losses Regulation, 2010 for following lines only.

Sl. No.	Asset	s/c or D/C	Voltage (kV)	No. of Bay maintained by UPPTCL	Line Length (ctk. km.)	Remarks (Ownership with UPPTCL)
1	220 kV SC Khodri-Saharanpur-1 Line	S/C	220	1	83.33	83.33 km
2	220 kV SC Khodri-Saharanpur-2 Line	S/C	220	1	81.05	81.05 km
3	220 kV SC Bareilly-Pantnagar Line	S/C	220	1	5.501	5.501 km
4	220 kV DC Sahibabad-Patparganj Line	S/C	220	2	7.002	7.002 km



5	220 kV SC Noida Sec 62-Gazipur Line	S/C	220	1	3.00	3.00 km
6	220 kV SC Noida Sec 20-Gazipur Line	S/C	220	-	4.354	4.354 km
7	220 kV SC Noida Sec 20 BTPS Line	S/C	220	1	13.303	13.303 km
8	220 kV SC Sahupuri-Pasauli Line	S/C	220	1	72.00	36.70 km

4. Commission, vide order dated 15.02.2016 in petition no. 286/TT/2013 directed the following:-

10. *The petitioner, vide affidavit dated 29.12.2015 has submitted that 220 kV Muzaffarnagar (Nara)-Roorkee line is natural inter -State line, however the same was not included in the order dated 14.03.2012 in Petition No. 15/SM/2012. The petitioner requested to allow tariff for the said line as it is a active line and involved in transmission of energy between Uttar Pradesh and Uttarakhand.*

11. *We have considered the submission of the petitioner and respondent. In the instant petition the STU lines used for carrying inter-State power has been considered for inclusion in the PoC charges in accordance with 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 hereinafter:-*

Xxxx

Xxxx

Xxxx

12. *The certificate of NRPC is available in terms of the above said provision in respect of fourteen (14) transmission line which were included in the Commission's order dated 14.03.2012 in Petition No.15/SM/2012. Since the NRPC certification is not available for 220 kV Muzaffarnagar (Nara)-Roorkee line, we direct the petitioner to approach NRPC for the required certification of this line for inclusion in the PoC charges and file*



a suitable application before the Commission after obtaining the certification from NRPC.

5. The instant petition has been filed by UPPTCL for approval of Yearly Transmission Charges (YTC) of eight transmission lines for the year 2014-15 for inclusion of these assets in the Point of Connection Charges as per the Central Electricity Regulatory Commission (Sharing of inter-State transmission Charges and Losses,) Regulations, 2010.

On the petitioner's request to NRPC for certification of UPPTCL owned 220 kV Muzaffarnagar (Nara)-Roorkee transmission line, NRPC vide their letter dated 11.04.2016 stated that the said line being physically inter-State line does not need certification under the category of "non-ISTS line being used for carrying inter-state power. Thus, UPPTCL has also requested for approval of transmission tariff for 220 kV Muzaffanagar(Nara) -Roorkee line under Natural Inter-State transmission lines for the years 2011-12, 2012-13, 2013-14 and 2014-15 in the present petition. Petitioner has submitted the configuration and other details of this line in the petition. Further, vide additional submission endorsed vide affidavit dated 30.11.2015, UPPTCL has sought YTC of eleven additional lines for inclusion in the ISTS pool.

6. As the instant transmission lines were constructed at different intervals of time, in the absence of audited cost of the lines, UPPTCL had worked out proportionate cost of line based on line length considered. Consequently, Commission had worked out the YTC for 2011-14 period for all such lines on ARR and network configuration basis.

7. The details of ARR of UPPTCL approved by the state Commission and voltage wise length of line in circuit-Km of



UPPTCL, which were considered in the previous order dated 15.2.2016 too, are given below:-

ARR of UPPTCL		
Sl.No.	Year	Rs.inlakh
1.	2009-10	68051
2.	2010-11	91418
3.	2011-12	110545
4.	2012-13	124138
5.	2013-14	148462
6.	2014-15	163382

(length in Ckt-km)

Sl. No.	Line Type	2010-11	2011-12	2012-13	2013-14	2014-15
1	765 kV D/C	-	-	-	-	-
2	765 kV S/C	409.00	406.38	406.38	406.38	406.38
3	400 kV D/C	1.50	1.50	1.50	519.81	591.51
4	400 kV D/C quad	-	-	-	-	-
5	400 kV S/C	3964.98	3964.98	3964.98	3964.98	3967.57
6	220 kV D/C	2213.11	2344.97	2358.43	2379.28	2769.89
7	220 kV D/C	5210.81	5545.38	5620.40	5662.98	5956.58
8	132 kV D/C	3135.32	3170.13	3305.59	3398.46	3726.71
9	132 kV S/C	9470.49	9867.18	10263.82	10546.37	11257.37

8. We have considered the submissions made by UPPTCL. UPPTCL has claimed transmission tariff for nine inter-State transmission lines for the year 2014-15. 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.

9. Petitioner has prayed for approval of tariff for Muzzafarpur- Nara line for the years 2011-12, 2012-13 and 2013-14 along with that for the year 2014-15.

In a similar case filed by Rajasthan Rajya Vidyut Prasaran Nigam Limited (RRVPNL) seeking tariff for inter-State transmission lines for the 2009-14 tariff period, the Commission vide order dated 18.10.2017 in Petition No.26/TT/2017 has declined to allow YTC retrospectively for the 2009-14 period. The relevant portion of the order is extracted hereunder:-

“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.”



10. UPPTCL has claimed transmission tariff for one inter-State transmission line retrospectively for the 2009-14 tariff period. As in the case of RRVPNL, the instant transmission lines are part of the State network. UPERC has already granted ARR for the State network for the 2009-14 period which is inclusive of the YTC of the transmission lines covered in the instant petition. As such, UPPTCL 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. It would also require revision/adjustment of the ARR already granted by UPERC for 2009-14 period. Hence, we are not inclined to allow YTC for these lines for the period 2011-14. UPPTCL has already filed the petition with this Commission, claiming tariff for the inter-State transmission lines owned by it for the year 2014-15 and tariff will be allowed accordingly.

11. In view of the above discussion, tariff is not allowed for the 220 kV Muzaffarnagar (Nara)-Roorkee line for the 2009-14 period. The filing fee deposited by UPPTCL in the instant case shall be adjusted in future.

12. Vide Additional affidavit dt 30.11.2016, UPPTCL has prayed for approval of YTC of two non-ISTS lines, viz, 400kV Sultanpur- KURSI Road (PGCIL) and 220 kV Nahtaur Matore (PG) for F.Y. 2016-17. UPPTCL has also prayed for Commission's approval of YTC of nine number 132 kV lines for the period 2014-19. We observe that UPPTCL has submitted the proposal of all these state eleven state- ISTS lines to NRPC for certification, which were to be taken up in 38th meeting of the NRPC on 25th October,



2016 for deliberations. However, as per the petition, the minutes of the 38th NRPC meeting are not yet issued and UPPTCL have submitted their request for inclusion of aforementioned lines based on the approved agenda point of the 38th NRPC meeting. We are not inclined to approve the YTC of the said lines merely on the basis of Agenda Points. We direct the petitioner to approach NRPC for the required certification of these lines for inclusion in the PoC charges and file a suitable application before the Commission after obtaining the certification from NRPC.

13. 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.

14. 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 TL shall be considered as 25 years. Thus, if life is more than or equal to 25 years as on 01.04.2014, only O & M 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 01.04.2014) lines.

Tariff Methodology:

15. 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:

Reference cost of 400 kV S/C TL		Rs 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 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.

16. Based on respective year end data, average transmission line length during the year has been worked out. Difference between a particular year's average 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.

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

- (i) Useful life of the transmission line shall be deemed to be 25 years.
- (ii) Prevailing depreciation rates as per the 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.

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

19. We observe that the petitioner company has not been able to provide the audited capital cost certificates. In line with the methodology explained in foregoing paragraphs, we now proceed to determine the tariff for the below stated transmission lines:

Sl. No	Name of Line	COD	Line length (in Ckt-km)
1	220 kV Roorkee - Muzaffarnagar Line	17.9.1979	58.000
2	220 kV SC Khodri-Saharanpur-1 Line	12.4.1972	83.330
3	220 kV SC Khodri-Saharanpur-2 Line	31.3.1980	81.050
4	220 kV SC Bareilly-Pantnagar Line	4.3.2003	5.501
5	220 kV DC Sahibabad-Patparganj Line	31.3.1983	7.002
6	220 kV SC Noida Sec 62-Gazipur Line	26.3.2009	3.000
7	220 kV SC Noida Sec 20-Gazipur Line	31.3.1983	4.354
8	220 kV SC Noida Sec 20 BTPS Line	30.9.1985	13.303
9	220 kV SC Sahupuri-Pasauli Line	26.4.1979	36.700



20. It is clear from the above table that the Assets at sl no (1), (2), (3), (5), (7), (8) and (9) have already completed twenty five years. Therefore, as per Commission's methodology, only IWC and O & M shall be allowable for these assets. For other assets, i.e. assets at sl no (4), and (6) in the table under para 19 above, transmission tariff has been worked out

21. The annual transmission charges being allowed are:

Asset (1): 220 kV Roorkee - Muzaffarnagar Transmission Line:

(Rs. In Lakhs)

Asset-1	2014-15
Depreciation	0.00
Interest on Loan	0.00
Return on Equity	0.00
IWC	1.29
O & M Expenses	23.43
Total	24.73

Asset (2): 220 kV Khodri - Saharanpur-1 Transmission Line:

(Rs. In Lakhs)

Asset-2	2014-15
Depreciation	0.00
Interest on Loan	0.00
Return on Equity	0.00
IWC	1.86
O & M Expenses	33.67
Total	35.53



Asset (3): 220 kV Khodri - Saharanpur-2 Transmission Line:

(Rs. In Lakhs)

Asset-3	2014-15
Depreciation	0.00
Interest on Loan	0.00
Return on Equity	0.00
IWC	1.81
O & M Expenses	32.74
Total	34.55

Asset (4): 220 kV Bareilly - Pantnagar Transmission Line:

(Rs. In Lakhs)

Asset-4	2014-15
Depreciation	3.56
Interest on Loan	0.19
Return on Equity	3.13
IWC	0.28
O & M Expenses	2.22
Total	9.38

Asset (5): 220 kV D/C Sahibabad - Patparganj Transmission Line:

(Rs. In Lakhs)

Asset-5	2014-15
Depreciation	0.00
Interest on Loan	0.00
Return on Equity	0.00
IWC	0.16
O & M Expenses	2.83
Total	2.99

Asset (6): 220 kV Noida Sec 62 - Gazipur Transmission Line:

(Rs. In Lakhs)

Asset-6	2014-15
Depreciation	2.71
Interest on Loan	1.30
Return on Equity	2.39
IWC	0.21
O & M Expenses	1.21
Total	7.83

Asset (7): 220 kV Noida Sec 20 - Gazipur Transmission Line:

(Rs. In Lakhs)

Asset-7	2014-15
Depreciation	0.00
Interest on Loan	0.00
Return on Equity	0.00
IWC	0.10
O & M Expenses	1.76
Total	1.86

Asset (8): 220 kV Noida Sec 20 - BTPS Transmission Line:

(Rs. In Lakhs)

Asset-8	2014-15
Depreciation	0.00
Interest on Loan	0.00
Return on Equity	0.00
IWC	0.30
O & M Expenses	5.37
Total	5.67



Asset (9): 220 kV Sahupuri - Pasauli Transmission Line

(Rs. In Lakhs)

Asset-9	2014-15
Depreciation	0.00
Interest on Loan	0.00
Return on Equity	0.00
IWC	0.82
O & M Expenses	14.83
Total	15.65

Detailed calculations for Assets (4) and (6) are enclosed as Annexures-(I) and (II).

22. The Annual Transmission Charges (ATC) being allowed vis-à-vis YTC claimed by the petitioner is:

(Rs. in Lakhs)

Sl. No	Name of Line	YTC Claimed for 2014-15	ATC being allowed
1	220 kV Roorkee - Muzaffarnagar Line	289.55	24.73
2	220 kV SC Khodri-Saharanpur-1 Line	416.00	35.53
3	220 kV SC Khodri-Saharanpur-2 Line	404.64	34.55
4	220 kV SC Bareilly-Pantnagar Line	27.47	9.38
5	220 kV DC Sahibabad-Patparganj Line	27.97	2.99
6	220 kV SC Noida Sec 62-Gazipur Line	14.98	7.83
7	220 kV SC Noida Sec 20-Gazipur Line	21.74	1.86
8	220 kV SC Noida Sec 20 -BTPS Line	66.41	5.67
9	220 kV SC Sahupuri-Pasauli Line	183.22	15.65
	TOTAL	1451.98	138.19

Filing Fee and Publication Expenses

23. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses, in terms of Regulation 52 of the 2014 Tariff Regulations. The petitioner shall be entitled for reimbursement of the filing fees and publication expenses



in connection with the present petition, directly from the beneficiaries on pro-rata basis in accordance with clause (1) of Regulation 52 of the 2014 Tariff Regulations.

Sharing of Transmission Charges

24. The transmission charges shall be recovered on monthly basis in accordance with Regulation 43 of Central Electricity Regulatory Commission (Terms and Condition of Tariff) Regulations, 2014 and shall be shared by the beneficiaries and long term transmission customers in Central Electricity Regulatory Commission (Sharing of Inter State Transmission Charges and Losses) Regulations, 2010 as amended from time to time. Further, the transmission charges allowed in this order shall be adjusted against the ARR approved by the UPERC.

25. Accordingly, Petition No. 168/TT/2016 is disposed of.

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

Sd/-
(A.S. Bakshi)
Member

Sd/-
(A.K. Singhal)
Member

Sd/-
(Gireesh B. Pradhan)
Chairperson



Annexure I			
Name of the Tr. System:	220 kV Bareilly - Pantnagar Transmission Line		
COD	04.03.2003		
CALCULATION OF ANNUAL TRANSMISSION CHARGES			
(Rs. In lacs)			
Rationalised cost of 400 kv line Rs lakh per ckt km	34		
Transmission Line length , in ckt km	5.50		
Multiplication factor	0.36		
			2014-15
Gross Block			67.33
Addition during 2014-19 due to Projected Additional Capitalisation			0.00
Gross Block total			67.33
Average Gross Blcok			67.33
Depreciation			
Rate of Depreciation		5.2800%	5.2800%
Depreciable value		90%	60.60
Elapsed Life as on 31.03.2014		11	11.00
Balance useful life of the asset			14.00
Remaining Depreciable value			21.49
Cumulative Depreciation	39.106565	39.11	42.66
	21.49		
Depreciation			3.56
Interest on Loan			
Gross Normative Loan		47.13	47.13
Cumulative Repayment upto Previous Year			42.66
Net Loan-Opening			4.47
Addition due to Additional Capitalisation			0.00
Repayment during the year			3.56
Net Loan-Closing			0.92
Average Loan			2.69
Weighted Average Rate of Interest on Loan			7.1141%
Interest			0.19
Return on Equity			
Gross Notional Equity		20.20	
Opening Equity			20.20
Average Equity			20.20
Rate of Return on Equity			15.50%
Return on Equity			3.13



Interest on Working Capital			
Maintenance Spares			0.33
O & M expenses			0.19
Receivables		2 Months	1.56
Total			2.08
Interest		13.50%	0.28
Annual Transmission Charges			
Depreciation			3.56
Interest on Loan			0.19
Return on Equity			3.13
Interest on Working Capital			0.28
O & M Expenses			2.22
Total			9.38
Normative O&M for S/C (Twin & triple Conductor) in Rs lakh/km			0.404



Annexure II			
Name of the Tr. System:	220 kV Noida Sec 62 - Gazipur Transmission Line		
COD	26.03.2009		
CALCULATION OF ANNUAL TRANSMISSION CHARGES			
(Rs. In lacs)			
Rationalised cost of 400 kv line Rs lakh per ckt km	47.54		
Transmission Line length , in ckt km	3.00		
Multiplication factor	0.36		
			2014-15
Gross Block			51.34
Addition during 2014-19 due to Projected Additional Capitalisation			0.00
Gross Block total			51.34
Average Gross Blcok			51.34
Depreciation			
Rate of Depreciation		5.2800%	5.2800%
Depreciable value		90%	46.21
Elapsed Life as on 31.03.2014		5	5.00
Balance useful life of the asset			20.00
Remaining Depreciable value			32.65
Cumulative Depreciation	13.554605	13.55	16.27
	32.65		
Depreciation			2.71
Interest on Loan			
Gross Normative Loan		35.94	35.94
Cumulative Repayment upto Previous Year			16.27
Net Loan-Opening			19.67
Addition due to Additional Capitalisation			0.00
Repayment during the year			2.71
Net Loan-Closing			16.96
Average Loan			18.32
Weighted Average Rate of Interest on Loan			7.1141%
Interest			1.30
Return on Equity			
Gross Notional Equity		15.40	
Opening Equity			15.40
Average Equity			15.40
Rate of Return on Equity			15.50%
Return on Equity			2.39



Interest on Working Capital			
Maintenance Spares			0.18
O & M expenses			0.10
Receivables		2 Months	1.30
Total			1.59
Interest		13.50%	0.21
Annual Transmission Charges			
Depreciation			2.71
Interest on Loan			1.30
Return on Equity			2.39
Interest on Working Capital			0.21
O & M Expenses			1.21
Total			7.83
Normative O&M for S/C (Twin & triple Conductor) in Rs lakh/km			0.404

