



सत्यमेव जयते

भारत सरकार
Government of India
विद्युत मंत्रालय
Ministry of Power
केन्द्रीय विद्युत प्राधिकरण
Central Electricity Authority
पावर कम्युनिकेशन डवलपमेंट प्रभाग
Power Communication Development Division

No. CEA/PCD/PTCC/UP-474/1207-1209

Date: 08.12.2019

DET (PTCC), Northern Zone,
Bharat Sanchar Nigam Limited (BSNL),
O/o PGM(N), Inspection Circle,
CTS Compound, Netaji Nagar,
New Delhi - 110023

Subject: Induced Voltage calculation in respect of PTCC proposal of 400 kV D/C Ghatampur – Kanpur transmission line

Ref: (i) Ghatampur Transmission limited letter no GTL/KNP/GKTL/PTCC/104 dated 21.02.19
(ii) BSNL letter no. DET/PTCC/ND/DV-9537/UP-758/2019-20 dated 08.07.2019
(iii) Northern Central Railway letter no: NCR/S&T/2074/TEL./PTCC(Part-I) dated 02.04.2019
(iv) Defense letter no. B/46937/Sigs 7(b)/1497/ dated 11.11.2019

The PTCC proposal submitted vide above ref(i) has been examined. The low frequency induction on telecom cables of BSNL and Block & Telecom circuits of Railway with respect to details furnished vide above references have been computed. The Soil Resistivity (SR) value has been taken as 36,000 Ohm-cm. The voltages likely to be induced on paralleling telecom cables of BSNL and Block & Telecom circuits of Railway under Single Line to Ground fault condition are enclosed at Annex-I & II respectively. The screening factors, as applicable, have been considered. Vide ref. (iv) above, Defence Authority have issued No Objection Certificate (NOC) (a copy enclosed as Annex-III).

Taking above into consideration, kindly take necessary action for PTCC route approval.

Encl.: As above

उपेन्द्र कुमार
08/12/19

(Upendra Kumar)
Chief Engineer

Copy to:

M/C

- 1) ASTE/Tele/HQ, North Central Railway, HQ's Office (S&T) Branch, Ganga Parisar, Subedarganj, Allahabad – 211015 (Annex – II only)
- 2) Associate Manager, Ghatampur Transmission Limited (Kanpur), 644 & 644A, Lakhanpur Co-operative Housing Society, Vikas Nagar, Kanpur - 208024

ANNEXURE -I

Case No.: UP-474 Name of the Power line: 400 KV D/C Ghatampur-Kanpur Transmission Line			Map Scale : 1cm=500mts Total Length : 49.076Km. S.R. Value : 30,000 Ohms-cm		
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.

BSNL DETAIL

Ref. No: DET / PTCC / ND / DV-9537 / UP-758 / 2019 - 2020
 DATED: 08-07-2019

Affected Blocks & Telcom Circuits Details

1	Ghatampur TE to Musanagar Road' (200 Pair, 05 KM)	} IV LESS THAN 430 V			
2	Ghatampur TE to Sajedi Road(200 Pair, 04 KM)				
3	Ghatampur TE to Jahangirabad Road (200 Pair, 03 KM)				
4	Gajner Exch to Thana end onwards (100 Pair, 1.5 KM)				
5	Rania Exch to NH Road (Popular Dharam Kanta) 400 Pair. 0.3 KM				
6	Gajner Exch to Raipur side Road (50 Pair, 0.5 KM)				
7	Gajner Exch to Sarwankhera Side (50 Pair, 0.5 KM)				
8	Rania Exch to State Bank Rania (50 Pair, 0.8 KM)				
9	Sarwankhera TE to Sarwankhera Chauraha (100 Pair, 1.5 KM)				
10	Sarwankhera TE to Raipura Side (50 Pair, 0.5 KM)				
11	Jainpur TE to Navipura Pullia (100 Pair, 01 KM)				
12	Jainpur TE to Gajner Road , Nabipura (100 Pair, 01 KM)				

उपे-९५३७
06/12/19
 मुख्य अभियंता / Chief Engineer
 केन्द्रीय विद्युत प्राधिकरण / C.E.A.
 विद्युत मंत्रालय / Ministry of Power
 भारत सरकार / Govt. of India
 नई दिल्ली / New Delhi

ANNEXURE -II

Case No.: UP-474

Name of the Power line: 400 KV D/C Ghatampur-Kanpur
Transmission LineMap Scale : 1cm=500mts
Total Length : 49.076Km.
S.R. Value : 30,000 Ohms-cm

S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.
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NORTH CENTRAL RAILWAY

Ref. No: NCR / S&T / 2074 / TEL./ PTCC (PART-1) DATED: 02-04-2019

Kanpur -Jhansi section

1	Lalpur - Tilaunchi	-----out of //sm-----			0
2	Tilaunchi - Paman	3	0.0039	13300	52
3	Paman - Rasalpur Gogamau	1.5	0.0007	13000	9

Bhimsen-Khairar

1	Pitara - Ghatampur	6	0.0012	7800	9
2	Ghatampur - Dohru	5	0.0066	9600	63
3	Dohru - Hamirapur Road	8.5	0.0138	10400	143
4	Hamirpur Road - Dapsaura	4.0	0.0065	13500	88
5	Dapsaura - Yamuna South bank	-----out of //sm-----			0

30-5-19K
06/12/18
मुख्य अभियंता/Chief Engineer
केन्द्रीय विद्युत प्राधिकरण/C.E.A.
विद्युत मंत्रालय/Ministry of Power
भारत सरकार/Govt. of India
नई दिल्ली/New Delhi

Tele : 23019746

Annex - III

Directorate General of Signals
Signals 7
General Staff Branch
Integrated HQ of MoD, (Army)
DHQ PO, New Delhi - 110011


B/46937/Sigs 7(b)/1497/

11 Nov 2019

Ghatampur Transmission Limited
644&644A, Lakhanpur Co-operative Housing Society,
Vikas Nagar, Kanpur, Pin Code-208024 (U.P.)

**PROPOSAL FOR PTCC APPROVAL OF 400KV D/C (TWIN MOOSE) GHATAMPUR-
KANPUR T/L**

1. Ref your letter No. GTL/KNP/GKTL/PTCC/04 dt 21 Feb 2019 (copy att).
2. No Objection Certificate (NOC) is accorded based on inputs provided vide Map sheet received under your letter mentioned above.
3. Documents alongwith map sheets (in original) are returned herewith for your further necessary action.


(A Rawat)
Maj
GSO 1 (Comn)
for SO-in-C

Enclosures : (As above)

Copy to :-

The Director (PTCC) CEA
Power Communication Development Division
NRPC Complex, 18-A Shaheed Jeeb Singh Marg
Katwaria Saraj, New Delhi - 110016

Divisional Engineer Telegraph (PTCC)
O/o GM (North); BSNL, QA & Inspection Circle,
CTS Compound, Africa Avenue Road,
Netaji Nagar, New Delhi-110023

} for information