



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/PNB-351/540-42

Date: 06.05.2019

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 220 kV D/C Chandigarh – Panchkula (O/H & U/G Cable) Transmission Line at Hallomajra GIS substation Chandigarh**

**Ref:** (i) BSNL letter no. DET/PTCC/ND/DV-9385/PB-901/2018-19 dated 31.10.2018  
(ii) Northern Railway letter no: 342-SIG/1/PTCC dated 12.01.2018  
(iii) Defense letter no. B/46937/Sigs 7(b)/813/ dated 19.02.2018

Sir,

The low frequency induction on BSNL and Railway Telecommunication circuits as per details furnished vide above cited references (i) and (ii) respectively has been examined. The Soil Resistivity value has been taken as 10000 Ohms-cm, as per data submitted by Power Authority. Voltages likely to be induced on paralleling BSNL Telecom Cables and Railway Telecommunication circuits under single line to ground fault condition are enclosed at Annex-I & II respectively. The screening factors as applicable have been considered. Defense has accorded NOC vide above Ref.(iii) for the above line. (a copy enclosed at Annex-III)

Taking above into consideration, kindly take necessary action regarding issue of PTCC route approval.

**Encl.:** As above

Yours faithfully,

(Naresh Bhandari) 6/5  
Chief Engineer

**Copy to:**

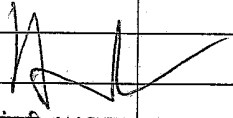
- 1) GM(S&T), Northern Railway, Headquarter Office, Baroda House, New Delhi. (Only Annex-II)
- 2) Chief Manager, PGCIL, 220/66 kV Substation, IT Park, Kishangarh – Manimajra Road, Manimajra, Chandigarh – 160101.

M/C



## ANNEX-II

<b>Case No.:</b> PNB-351 <b>Name of the Power line:</b> 220 kV D/C Chandigarh – Panchkula (O/H & U/G Cable) Transmission Line at Hallomajra GIS substation Chandigarh		<b>Map Scale :</b> 1:50000 <b>Length :</b> 24.656 Kms (14.940 km O/H & 9.716 km U/G cable) <b>S.R. Value :</b> 10000 Ohms-cm			
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.

<b><u>NORTHERN RAILWAY</u></b>					
Ref. No: 342-SIG /1/PTCC		DATED: 12.01.2018			
1.	Dhapper R/S – Ghaggar R/S	2.0	0.0008	6200	5
2.	Ghaggar R/S – Chandigarh R/S	6.5	0.0018	6950	13
			 <b>नरेश भंडारी / NARESH BHANDARI</b> मुख्य अभियन्ता / Chief Engineer केन्द्रीय विद्युत प्राधिकरण / C. E. A. विद्युत मंत्रालय / Ministry of Power भारत सरकार / Govt. of India नई दिल्ली / New Delhi - 66		
					1/1

ANNEX-III

Tele : 23019746

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

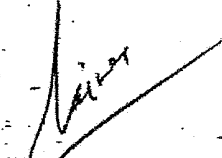
B/46937/Sigs 7(b)/813/

19 Feb 2018

✓ Chief Manager  
Power Grid Corporation of India Ltd  
220/66 KV Substation, IT Park,  
Kishangarh - Manimajra Road,  
Manimajra, Chandigarh - 160101  
Ph - 0172-2745808

**CONSTRUCTION OF 220 KV D/C CHANDIGARH - PANCHKULA  
(OVERHEAD & U/G CABLE) TRANSMISSION LINE AT 220/66 KV  
HALLOMAJRA GIS SUBSTATION CHANDIGARH -  
REGARDIANG SUBMISSION OF PTCC CASE**

1. Reference your letter No N2MM/PTCC/2017/ DT 14 Nov 2017./
2. No Objection Certificate (NOC) is accorded based on inputs provided vide Map sheets received under your letter mentioned above.
3. Documents alongwith map sheets (in original) are returned herewith for your further necessary action.

  
(Nainee Sharma)  
Lt Col  
GSO 1 (Comn)  
for SO-in-C

**Copy to :-**

The Director (PTCC)  
CEA, Telecom Division, NRPC Complex  
18-A Shaheed Jeet Singh Marg  
Katwaria Sarai, New Delhi - 110016

) - For information.