



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/RAJ-621 /608-610

Date:23.05.2019

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 765 kV D/C Bhadla – Bikaner Transmission Line**

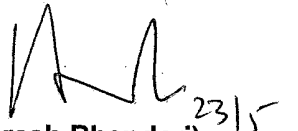
**Ref:** (i) BSNL letter no. DET/PTCC/ND/DV-9414Raj-1206/2018-19/28 dated 06.03.2019  
(ii) Northern Western Railway letter no. SG/158/NWR/PTCC/727 dated 18.01.2019  
(iii) Defense letter no. B/46937/Sigs 7(b)/917/ dated 06.03.2018

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 1,00,000 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

  
(Naresh Bhandari)  
Chief Engineer

**Copy to:**

- 1 Dy. CSTE, North Western Railway, Head Quarter Office, Room No. 136, First Floor, Near Jawahar Circle, Jaipur – 302017. (Rajasthan) (With Annex – II only)
- 2 Manager, PGCIL, 765/400/220 kV Sub-Station Bhadla, Village Noore Ki Bhurj, The. bap, Distt. Jodhpur – 342307 (Rajasthan)

M/C

Case No. : RAJ-621

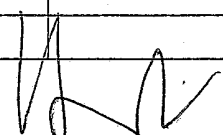
Annexure I

Name of the Power Line: 765 KV D/C Bhadla-Bikaner Transmission Line

Toposheet Scale : 1cm=500mts  
Total Length : 168.94 Kms  
S.R Value : 1,00,000 Ohm-cm

Sl. No.	Name of Telecom Line	LOP in Kms	MC in Ohms	Fault Current (Amps)	IV in Volts
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BSNL					
Reference No. DET/PTCC/ND/DV-9414/Raj-1206/2018-19/28					
Date : 06.03.2019					
BSNL Details					
1	Nokh to Baap ( Armoured OFC )	}	← IV less than 430V →		
2	Girajsar T. Exch to Girajsar Village ( UG Cable)				
3	Ghadiyala T. Exch to Ghadiyala Village ( UG Cable)				
4	Bithnokh T. Exch to Bithnokh Village ( UG Cable)				
5	Kharicharan T. Exch to Gajner T. Exch ( Armoured OFC)				

  
नरेश भंडारी / NARESH BHANDARI  
मुख्य अभियन्ता / Chief Engineer  
केन्द्रीय विद्युत प्राधिकरण / C.E.A.  
विद्युत मंत्रालय / Ministry of Power  
भारत सरकार / Govt. of India  
नई दिल्ली / New Delhi-56



ANNEX-III

Tele : 23019746

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

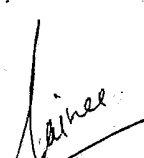
B/46937/Sigs 7(b)/917/

06 Mar 2018

✓ Manager  
Power Grid Corporation of India Ltd  
765/400/220 KV Sub Station (Const) Bhadla,  
115, Nandpuri Colony, Nagpur Road,  
Phalodi - 342301 (Jodhpur)

**PTCC CLEARANCE FOR FOR 765 KV D/C BHADLA - BIKANER  
(PART-I) TRANSMISSION LINE ASSOCIATED WITH TRANSMISSION  
SYSTEMS FOR SOLAR PARK AT BHADLA (JODHPUR)**

1. Reference your letter No NI/Bhadla/TI-Const/409 dated 08 Jan 2018.
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.