



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/MP-442/ 156-158

Date: 25.02.2020

The Divisional Engineer (PTCC), Western Zone,  
Bharat Sanchar Nigam Limited (BSNL),  
O/o DET (PTCC), QA & Inspection Circle,  
3<sup>rd</sup> Floor, D-Wing, BSNL Admin Building,  
Juhu Tara Road, Santacruz (West),  
Mumbai-400054

**Subject:** Induced voltage calculation in respect of 400 kV DCDS line from 765/400 kV S/S Indore to proposed 400 kV S/S Ujjain.

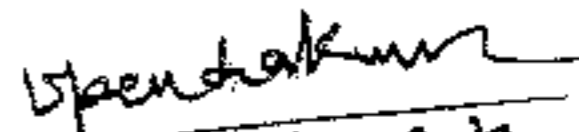
**Ref. :**

(i)	MPPTCL Ref. No. 04-01/PTCC/2489/TR-I/5516	Dated: 13.08.2018
(ii)	BSNL Ref. No. IC/MBI/PTCC/MP-563	Dated: 31.01.2019
(iii)	Western Railway Ref. No. SG. 158/28/10 (L-179)	Dated: 07.06.2019
(iv)	Defense Ref. No. B/46937/Sigs 7(b)/1245	Dated: 15.10.2018

The PTCC proposal submitted vide ref. (i) has been examined. The low frequency induction on BSNL cables and block circuits of Western Railways as per details furnished vide ref. (ii) and ref. (iii) respectively has been examined. The Soil Resistivity value has been taken as 25,000 Ohms-cm, as per data submitted by Power Authority. Voltages likely to be induced on paralleling BSNL cables and Railway block circuits under single line to ground fault condition are enclosed at Annex-I and Annex- II respectively. The screening factors as applicable have been considered. Defense has accorded NOC vide above ref. (iv) for this line (a copy enclosed at Annex-III).

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

**Encl.:** As above.

  
25.2.2020

(Upendra Kumar)  
Chief Engineer, PCD

**Copy to :**

1. CSTE(Tele), O/o GM(S&T), 5<sup>th</sup> Floor, Station Building, Churchgate, Western Railway, Mumbai-400020. (Annex-II only)
2. Chief Engineer (Procurement), MPPTCL, 1<sup>st</sup> Floor, Block No. 3, Shakti Bhawan, Rampur, Jabalpur, Madhya Pradesh -482008.

M/C

**ANNEXURE - I**

**Case No.:** MP-442  
**Name of the Power line:** 400KV DCDS line from 765/400KV S/s Indore (PGCIL) TO Proposed 400 S/s Ujjain.

**Map Scale** : 1cm=500mts  
**Total Length** : 42.264Km.  
**S.R. Value** : 25,000 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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**BSNL DETAIL**

Ref. No: IC / MBI / PTCC / MP-563      DATED: 31-01-2019

**Affected Blocks & Telcom Circuits Details**

	<b>INDORE SSA</b>				
	<b>SDOP (R) Sanwer</b>				
(I)	Darjekaradia T/Exchange				
	Point (1) to Point (2) — (2x20) Pair	}	IV less than	430 V	
	Point (1) to Point (3) — 100 Pair				
(II)	Dharampuri T/Exchange				
	Point (4) to Point (5) — 50 Pair	}	IV less than	430 V	
	Point (4) to Point (6) — 50 Pair				
	Point (4) to Point (7) — 100 Pair				
	Point (4) to Point (12) — 50 Pair				
(III)	Simrod T/Exchange				
	Point (8) to Point (9) — (2x400) Pair		IV less than	430V	
(IV)	Sanwer T/Exchange				
	Point (10) to Point (11) — 50 Pair		IV less than	430 V	
	<b>UJJAIN SSA</b>				
	<b>SDOT Tarana</b>				
	U/G BSNL cable existing within vicinity of 8.00Km near to the proposed power line, i.e. 8.00Km corridor on either side of proposed power line - NIL		N/A		

19K  
 25/1/2019  
 मुख्य अभियंता / Chief Engineer  
 केंद्रीय विद्युत आयोग / C.E.A.  
 विद्युत मंत्रालय / Ministry of Power  
 भारत सरकार / Govt. of India  
 नई दिल्ली / New Delhi



Annexure-III

MP-442

Tele : 23019746

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

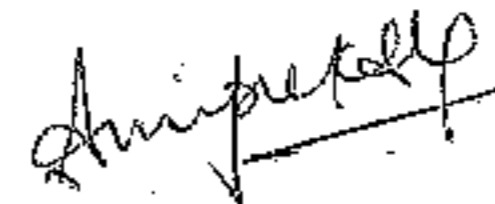
B/46937/Sigs 7(b)/1245/

15 Oct. 2018

Chief Engineer (Procurement)  
Madhya Pradesh Power Transmission Co. Ltd.  
Block No 3, Shakti Bhawan,  
Rampur, Jabalpur (MP) 482008

**CONSTRUCTION OF 400KV DCDS LINE FROM 765/400S/S(PGCIL) INDORE TO  
PROPOSED UJJAIN (400KV S/S) PTCC ROUTE APPROVAL**

1. Ref your letter No. 04-01/ PTCC/ 2489/TR-I/5516 dt 13 Aug 2018 (copy att).
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 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 Jeet Singh Marg  
Katwaria Sarai, New Delhi - 110016

for information.