



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-446/ 353-355

Date: 27.03.2019

DET (PTCC), Western Zone,
Bharat Sanchar Nigam Limited (BSNL),
O/o DET(PTCC), QA & Inspection Circle,
3rd Floor, D-Wing, BSNL Admin Bldg.,
Juhu Tara Road, Santacruz (West),
Mumbai – 400054.

Subject: Induced Voltage calculation in respect of PTCC proposal of 220 kV DCDS line from proposed 400/220 kV S/S Badnagar to proposed 220 kV S/S Kanwan

Ref: (i) BSNL letter no. IC/MBI/PTCC/MP-575 dated 19.02.2019
(ii) Defense letter no. B/46937/Sigs 7(b)/1290 dated 03.12.2018

Sir,

The low frequency induction on BSNL circuits as per details furnished vide above cited references (i) has been examined. The Soil Resistivity value has been taken as 7500 Ohms-cm, as per data submitted by Power Authority. Voltages likely to be induced on paralleling BSNL Telecom Cables under single line to ground fault condition are enclosed at Annex-I. The screening factors as applicable have been considered. Defense has accorded NOC vide above Ref.(ii) for the above line (a copy enclosed at Annex-II).

Railway Authority have not yet submitted Railway Telecommunication details. However, on observing the Topo map, it is found that there is no Railway track in the vicinity of Zone of consideration for Induced voltage calculation.

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

Encl.: As above

Yours faithfully,

(Naresh Bhandari)
Chief Engineer

Copy to:

- 1) Office of CSTE, Western Railway, S&T Dept. , 5th Floor, Station Building, Churchgate, Mumbai – 400020 (**Only Cover Letter**)
- 2) Chief Engineer(Procurement), GETCO, Block No. 3, Shakti Bhawan, Rampur, Jabalpur (M.P.) - 482008

MIC

Annex-I

CEA Office Case No.: MP-446		Map Scale: 1:50,000			
DET (PTCC) Office Case No.: IC/MBI/PTCC/MP-575		Route Length: 31.920 Kms			
Railway Office Case No.:		Average SR Value: 7,500 Ohm cms			
Name of Power Line		220KV DCDS line from 400/220KV S/s Badnawar to proposed 220KV S/s Kanwan under Phase-I Project of Green Energy Scheme of MNRE of GoI			
S. No.	Name of Telecom Line/ Cable	Length of Parallelism in Kms.	Mutual Coupling in Ohms	Fault Current in Amps	Induce Voltage in Volts
	DHAR SSA				
	SDOT Dhar/Badnawar				
(1)	Badnawar Exch to Badnawar Village - 400 Pair	}			} IV less than 430V →
(2)	Badnawar Exch to Badnawar Village - 200 Pair				
(3)	Badnawar Exch to Badnawar Village - 100 Pair				
(4)	Badnawar Exch to Choupati - 50 Pair				
(5)	Kanwan Exch to Kanwan Village - 200 Pair	}			} ← IV less than 430V →
(6)	Kanwan Exch to Kanwan Village - 100 Pair				
(7)	Kanwan Exch to Kanwan Village - 50 Pair				
(8)	Nagda (Makni) Exch to Nagda (Makni) Village - 200 Pair	}			} ← IV less than 420V →
(9)	Nagda (Makni) Exch to Nagda (Makni) Village - 100 Pair				
(10)	Karod Kalan Exch to Karod Kalan Village - 200 Pair	}			} ← out of 115m →
(11)	Bidwal Exch to Bidwal Village - 100 Pair				
(12)	Kod Exch to Kod Village - 100 Pair	}			} ← IV less than 430V →
(13)	Bakhatgarh Exch to Bakhatgarh Village - 200 Pair				
(14)	Multhan Exch to Multhan Village - 100 Pair				
(15)	Multhan Exch to Multhan Village - 50 Pair	}			} ← out of 115m →
(16)	Tilgara Exch to Tilgara Village - 100 Pair				
(17)	Tisgaon Exch to Tisgaon Village - 100 Pair	}			} ← out side IV consideration zone →

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-66

Tele : 23019746

MP-446

ANNEX-II

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

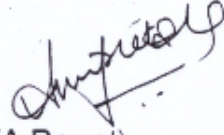
B/46937/Sigs 7(b)/1290/

03 Dec 2018

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

**PTCC ROUTE APPROVAL FOR CONSTRUCTION OF 220KV DCDS LINE FROM
PROPOSED 400KV S/S BADNAGAR TO PROPOSED 220KV S/S KANWAN**

1. Ref your letter No 04-01/PTCC/2468/TR-I/7524 dt 08 Oct 2018 (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

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.

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18/12/2018