

भारत सरकार

Government of India विद्युत मंत्रालय

Ministry of Power केन्द्रीय विद्युत प्राधिकरण

Central Electricity Authority पावर कम्युनिकेशन डवलप्मेंट प्रभाग

Power Communication Development Division

No. CEA/PCD/ PTCC/RAJ - 605 & 606/ 3/6-3/8

Date: 18.03.2019

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 Ajmer -Bikaner Transmission Line associated with green energy corridor (ISTS)

- Ref: (i) BSNL letter no. DET/PTCC/ND/DV-9356/Raj-172/2018-19/16 dated 12.12.2018
 - (ii a) Northern Western Railway letter no. SG/158/NWR/PTCC/675 dated 19.12.2017
 - (ii b) Northern Western Railway letter no. SG/158/NWR/PTCC/677 dated 10.01.2018
 - (iii a) Defense letter no. B/46937/Sigs 7(b)/707/ dated 09.01.2018
 - (iii b) Defense letter no. B/46937/Sigs 7(b)/696/ dated 21.10.2017

Sir.

The low frequency induction on BSNL and Railway Telecommunication circuits as per details furnished vide above cited references (i) and (ii - a&b) respectively has been examined. The Average Soil Resistivity value has been taken as 15000 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-A&B respectively. The screening factors as applicable have been considered. Defense has accorded NOC vide above Ref.(iii-a&b) for the above line (a copy enclosed at Annex-III- A&B).

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

Encl.: As above

110

Yours faithfully,

(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 A&B only)
- 2) DGM, PGCIL, 765/400/220 kV Sub-Station(Const.) 6 B-41, Jai Narayan Vyas Colony, Bikaner 334001. (Rajasthan)

ANNEXURE - I

	of the Power line: 765 KV D/C Ajmer-Bika ted with Green Energy Corridor	aner T/L		Fotal Length: 262.694Km. S.R. Value: 15000 Ohms-c	
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts
BSNL R	ef. no. DET / PTCC / ND / DV -9356 / Raj – 172 /	2018-19 /16 Dt	.06.07.2018		
Affecte	d Blocks & Telcom Circuits Details				
1	PHIROD TO KASNAU	,			
2	NAGELAD TO NAGELAO INTERMEDIATERY	IV less than 430V			
3	NAGELAD TO ALIPURA				
4	NAGELAD TO BHATSURI	2.9	0.0338	18500	625
5	PISANGEN TO NAD	3.5	0.0352	18125	638
6	PISANGEN TO SETHAN		IV less the	an 430\/	
7	PISANGEN TO DABLA	IV less than 430V			
8	PISANGEN TO KALESARA	5.0	0.0231	18100	418
9	PISANGEN TON PIASNGEN INTERMEDIATERY				
10	GOVINDGARH TO GOVINDGARH INTERMEDIATERY	IV less than 430V			
11	KUCHAUR ATHUNI TO KUCHAUR AGUNI				
			1/1	A	
			//		
			10		
			नरेश भंडारी/NAF	RESH BHANDARI	
			केन्द्रीय विद्युत प्र	Chief Engineer थिकरण / C.E.A.	
			भारत सरकार	Govt, of India	
			4×110021 \$1-	lew Delhi-66	

ANNEXURE - II-A

Name of	o.: RAJ-605 & 606 of the Power line: 765 KV D/C Ajmer-Bika ted with Green Energy Corridor	ner T/L	Map Scale Total Length S.R. Value		n.
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.

	NORTH WESTERN RAILWAY Ref no. SG/158/NWR/PTCC/675 dated	19.12.2017			
	Affected Blocks & Telecom Circuits D	<u>Details</u>			
1	REN - JALSU	1	0.0012	14375	17
2	JALSU - DEGANA		out of //sm	_	0
			1 1		
				A	
+		,	where starth MARES	LV TH BHANDARI	
			नरेश भंडारी/NARE पुरुष अभियन्ता/Ct केन्द्रीय विद्युत प्राधि किस्तु पंत्रालय/Min	ief Engineer करण/C.E.A.	
			श्वारत सरकार/G भारत सरकार/G सई दिख्ली/Ne	ovt. of India	
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ANNEXURE -II-B

Case No.: RAJ-605 & 606 Map Scale : 1cm=500mts Total Length: 262.694Km. Name of the Power line: 765 KV D/C Ajmer-Bikaner T/L S.R. Value : 15000 Ohms-cm associated with Green Energy Corridor Effective Length of Parallelism Mutual Fault I.V Coupling current in S.No. Telecom. Details in Km. in Ohms. in Amps. Volts.

	NORTH WESTERN RAILWAY Ref no. no. SG/158/NWR/PTCC/667 date	d 10.01.2018					
	Affected Blocks & Telecom Circuits Details						
1	DHIRERA - JAGDEOWALA		out of parallelism		0		
2	JAGDEOWALA - JAMSAR	8.5	0.0098	19200	188		
3	JAMSAR - KANASAR	out of parallelism			0		
4	GADHWALA - NAPASAR	0.8	0.0001	17100	2		
5	NAPASAR - SUDSAR	4.0	0.0046	17000	78		
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				1/\ \ \			
				IN			
				डारी /NARESH BH			
			भूतम् आक्याना/Chief Erfulle केन्द्रीय विद्युत प्राधिकरण/C.E./ स्थित पंजानय/Ministry of Pow				
			। बबुत भारा	India			
				रिक्लो /New Dell			

ANNEX-III A

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)/707/

09 Jan 2019

Chief Manager Power Grid Corporation of India Ltd B-703,Pragati Nagar Kotra Awasiya Yojna, Kotra Ajmer, Rajasthan - 305004

PTCC CLEARANCE FOR 765KV D/C AJMER – BIKANER TRANSMISSION LINE PART- I & II) OF POWER GRID ASSOCIATED WITH GREEN ENERGY CORRIDOR ISTS- PART D

- 1. Reference your letter No NI/AJMER/AB-TLC/PTCC/ dated 09 Nov 2017.
- 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.

(Namee Sharma)

L Col

GSO 1 (Comn) for SO-in-C 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)/696/

Dy General Manager
Power Grid Corporation of India Ltd
765/400/200 KV, Sub Station (Const),
6B- 41, Jai Narayan Vyas Colony
Bikaner - 334001

7 Dec 2017

PTCC CLEARANCE FOR 765 KV D/C AJMER – BIKANER TRANSMISSION LINE (PART III & IV) ASSOCIATED WITH GREEN ENERGY CORRIDORS ISTS (PART C&D)

- Reference your letter No NR-1/BKN/PTCC/ dated 02 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 :-

Director, PTCC, CEA - For NREB Complex 18A, Shaheed Jeet Singh Marg Katwaria Sarai, New Delhi - 110016

For information.

2 MST (T/L)

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