

## भारत सरकार Government of India विद्युत मंत्रालय Ministry of Power केन्द्रीय विद्युत प्राधिकरण Central Electricity Authority पावर कम्युनिकेशन डवलप्मेंट प्रभाग Power Communication Development Division

सं.: CEA/PCD/PTCC/GUJ-768/138-140

DET (PTCC), Inspection Circle, Bharat Sanchar Nigam Limited (BSNL), 3rd Floor, D-Wing, BSNL Admin Bldg. Juhu Tara Road, Santacruz (West), Mumbai-400054

Subject: PTCC Route Approval for RPVPL switchyard-Bhachau S/s 220kV D/C line.

(i) BSNL Ltr.No.IC/MBI/PTCC/GUJ-2759

dt. 20/12/2018

Date: 05/02/2019

(ii) Western Railway Ltr No.SG.158/28/12(1053)

dt.11/01/2019

(iii) Defense Letter No.B/46937/Sigs 7(b)/1355

dt.26/12/2018

Sir,

The low frequency induction on telecom cables of Railway with respect to details furnished vide above reference (i), and (ii) respectively has been computed. The average Soil Resistivity (SR) value has been taken as 20,000 Ohm Cm, as intimated by the Power Authority, ReNew Power Limited. The voltages likely to be induced on paralleling telecom circuits of BSNL and Railway under Single Line to Ground fault condition have been computed and 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.

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

> (Naresh Bhandari) Chief Engineer

## Copy to:

 GM(S&T), Western Railway, Office of CSTE, S&T Dept.5th Floor, Station Building, Churchgate, Mumbai-400020 (Annexure-II only)

2. Manager (Projects), ReNew Power Limited, Commercial Block-1, Zone 6, Golf Course Road, DLF City Phase-V, Gurugram-122009

Name	o.: GUJ-768 of the Power line: witchyard-Bhachau S/s 220kV D/C line.		Map Scale : 1cm=500mts Total Length : 45.97 Km. S.R. Value : 20,000 Ohms-cm			
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.	
	BSNL DETAIL					
	Ref. No. IC/MBI/PTCC/GUJ/2759	Dated at Mumb	hai the 20/12/2	2018		
	INC. INC. IO/MIDI/I TOO/GOO/2700	Dated at Marris				
1	CHANDRODA EXCHANGE					
1A	Chandroda ExchLocal 200*1P		037			
2A	Chandroda ExchLocal 100*1P	IV less than 43	IV less than 430V			
3A	Chandroda ExchLocal 100*1P					
2	KHEDOI EXCHANGE					
1B	Khedoi Moti ExchLocal-20*1PE	W. L d 42037				
2B	Khedoi Moti ExchLocal-100*1PE	IV less than 430V				
3B	Khedoi Moti ExchLocal-100*1PE					
4B	Khedoi Moti ExchLocal-50*1PE					
3	RKHAMRA EXCHANGE					
1C	Khamra ExchLocal-100x1P	IV less than 43	TV 1 4 420 V			
2C 3C	Khamra ExchLocal-50x1P	IV less than 45	. ·			
30	Khamra ExchLocal-100x1P					
4	RATNAL EXCHANGE					
1D	Ratnal ExchLocal-100x1P					
2D	Ratnal ExchLocal-10x1P					
3D	Ratnal ExchLocal-20x1P	IV less than 43	0 V			
4D	Ratnal ExchLocal-50x1P					
5	ANJAR EXCHANGE					
1E	Anjar ExchLocal-200+100*2+50*4					
2E	Anjar ExchLocal-100*1+50*1P					
3E	Anjar ExchLocal-100*1+50*1P					
4E	Anjar ExchLocal-100*1P					
5E	Anjar ExchLocal-200*1P					
6E	Anjar ExchLocal-100*1P					
7E	Anjar ExchSatapar 100*1+50*1P	IV less than 430 V				
8E	Anjar ExchLocal-100*1+50*1P					
9E	Anjar ExchSupeda-100*1+50*1P					
10E	Anjar ExchLocal-400+100*3+50*4P					
11E	Anjar ExchLocal-50*4P					
12E	Anjar ExchLocal-100*1+50*12P	/ Y )				
13E	Anjar ExchMeghpar-200+100*2+50*4				Α	
6	VARSAMERI EXCHANGE			1000	/	
1F	Varsameri ExchLocal-	IV less than 43	50 V			
2F	100PVarsameri ExchPaswaria-20P		market and	and Alabeet Street	NDAD	
7	LAKHAPAR EXCHANGE		नरश भ	डारी/NARESH BHA अभियन्ता/Chief Eng	INDARI	
1G	Lakhapar ExchLocal-100*1+50*1P		केन्द्रीय	य विद्युत प्राधिकरण/C	E.A.	
2G	Lakhapar ExchAmbapar-50*1P	IV less than 430V विद्युत मंत्रालय/Ministry of Pow		Power		
3G	Lakhapar ExchLocal-100*1+50*1P			सरकार/Govt. of   दिल्ली/New Delhi		

## ANNEXURE - I

in Amps.

Volts.

Name of the Power line:  RPVPL switchyard-Bhachau S/s 220kV D/C line.		Map Scale : 1cm=500mts Total Length : 45.97 Km. S.R. Value : 20,000 Ohms-cm			
		Length of Parallelism	Mutual Coupling	Effective Fault current	I.V in

in Km.

in Ohms.

Telecom. Details

S.No.

8	BHIMASAR EXCHANGE					
1H	Bhimasar ExLocal-100x1+50*1P	IV less than 430 V				
2H	Bhimasar ExAjapar-20*1P	5	0.062	10,000	620	
3H	Bhimasar ExMorwada-20*2P					
4H	Bhimasar ExPadana-50*2P					
5H	Bhimasar ExLocal-200*1P	IV less than 430 V				
6H	Bhimasar ExLocal-10*1P					
7H	Bhimasar ExPasuda-10*1P	IV less than 430 V				
9	MOTI CHARAI EXCHANGE					
11	Motichirai Local-400*1P	IV less than 430 V				

NARESH BHANDAR

ात्र अपूर्ण /NARESH BHANDAR। पुरुष्ट आंश्रयन्ता/Chief Engineër केन्द्राच विद्युत प्राधिकरण/C.E.A. श्रिथुत वंत्रालय/Ministry of Power भारत सरकार/Govt. of India वर्ड दिल्ली/New Delhi-66

ANNEXURE-II Case No.: GUJ-768 Map Scale : 1cm=500mts Name of the Power line: Total Length: 45.97 Km. S.R. Value : 20,000 Ohms-cm RPVPL switchyard-Bhachau S/s 220kV D/C line. Effective Length of I.V Mutual Fault Parallelism Coupling in current in Km. in Ohms. in Amps. Volts. Telecom. Details S.No. WESTERN RAILWAY Date: 11/01/2019 Ref. No. SG.158/28/12(1053) 0 Bhachau-Chirai Out of parallelism

1	Bhachau-Chirai		Out of parallelism		
2	Chirai-Bhimasar	2.5	0.0022 10,000	22	
3	Bhimasar-Gandhidham Block	Out of par	0		
4	Adipur-Anjar	Out of par	0		
5	Anjar-Ratnal	4.8	0.014 5115	72	
6	Ratnal-Kukama	Out of par	allelism	0	
			0.0		
			///		
				)	
			( ) In		
				DARI	
			ारेश भंडारी/NARESH BHAN बुख्य अभियन्ता/Chief Engli केन्द्रीय विद्युत प्राधिकरण/C विश्वन पंत्रालय/Ministry of P भारत संस्कार/Govt. of In	neer	
			केन्द्राय खनुत प्राधिकरण/C.	E.A.	
			the desire / Ministry of P	dia	
			#178 A74617 DOVE OF IT	36	
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