



भारत सरकार

Government of India

विद्युत मंत्रालय

Ministry of Power

केन्द्रीय विद्युत प्राधिकरण

Central Electricity Authority

पावर कम्युनिकेशन डेवलपमेंट प्रभाग

Power Communication Development Division

No. CEA/PCD/ PTCC/GUJ-772/ 344-346

Date: 26.03.2019

DET (PTCC), Western Zone,  
Bharat Sanchar Nigam Limited (BSNL),  
O/o DET(PTCC), QA & Inspection Circle,  
3<sup>rd</sup> 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 S/C line on D/C tower from existing 220 kV Mokha S/S to Proposed M/s. Chromeni Steel Pvt. Ltd.**

Ref: (i) BSNL letter no. IC/MBI/PTCC/GUJ-2730 dated 20.12.2018  
(ii) Defense letter no. B/46937/Sigs 7(b)/1301 dated 07.02.2019

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 10000 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

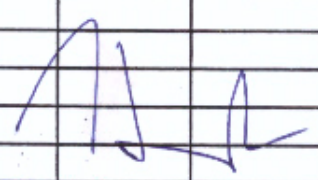
Yours faithfully,

(Naresh Bhandari)  
Chief Engineer

**Copy to:**

- 1) Office of CSTE, Western Railway, S&T Dept. , 5<sup>th</sup> Floor, Station Building, Churchgate, Mumbai – 400020 (**Only Cover Letter**)
- 2) Chief Engineer(Projects), GETCO, Sardar Patel Vidyut Bhavan, Race Course, Vadodara – 390007.

ANNEX-I

CEA Of Case No.----- G.U.J-772		Map scale- 1 Cms = 500 Meters			
DET (PTCC) Office Case No. 2730		Route Length- 6.258 KMS			
Railway Office Case No.		Soil Resistivity- 10,000 Ohm/CM			
Name of Power Line: 220 KV S/C LINE FROM MOKHA S/S TO M/S CHROMENI STEEL PVT. LTD. ON AL-59 CONDUCTOR.					
DETAILS FROM BSNL SIDE			DETAILS FROM POWER COMPANY		
Sl.No.	Name of the Telecom line/Cable	Length of parameter in KM	Mutual coupling in Ohms	Fault Current in Amp	Induce Voltage in Volts
<b>1 BHADRESHWAR EXCHANGE EXCHANGE</b>					
1A	Bhadreshwar Exch. - Local- 50*1 P	} ← outside IV consideration zone →			
2A	Bhadreshwar Exch. - Local- 20*1 P				
3A	Bhadreshwar Exch. - Local- 20*4 P				
4A	Bhadreshwar Exch. - Local- 10*7 P				
<b>2 GUNDALA EXCHANGE</b>					
1B	Gundala Exch. - Local-200*1 P	← out of 115m →			
2B	Gundala Exch. - Toda Rd-100*1 P	← out of IV consideration zone →			
3B	Gundala Exch. - Ratadia-50*2+20*1 P	← IV less than 430V →			
<b>3 WADALA EXCHANGE</b>					
1C	Wadala Exch. - Mokha-200*1+50*1 P	} ← IV less than 430V →			
2C	Wadala Exch. - Nilkanth- 50*1 P				
3C	Wadala Exch. - Local- 100*1 P	2.0	0.0485	6000	291
<b>4 LUNI EXCHANGE</b>					
1D	Luni Exch.- Local- 200*1+100+50 P	← out side IV consideration zone →			
<b>5 CHANDRADA EXCHANGE</b>					
1E	Chandrada Exch. - Local- 200*1 P	} ← outside IV consideration zone →			
2E	Chandrada Exch. - Local- 100*1 P				
3E	Chandrada Exch. - Local- 100*1 P				
<b>6 KUNDRODI EXCHANGE</b>					
1F	Kundrodi Exch.- Local- 50*1 P	} IV less than 430V →			
2F	Kundrodi Exch.- Chhasra- 50*1 P				
3F	Kundrodi Exch.- Bagada- 50*1 P				
4F	Kundrodi Exch.-Wagura- 50*1 P				
					
		नरेश भंडारी/NARESH BHANDAR मुख्य अभियंता/Chief Engineer केंद्रीय विद्युत प्राधिकरण/C.E.A. विद्युत मंत्रालय/Ministry of Power भारत सरकार/Govt. of India नई दिल्ली/New Delhi-66			



le: 23019746

GUB-772

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

16937/Sigs 7(b)/1301/

07 Feb 2019

Chief Engineer (Project)  
Jarat Energy Transmission Corporation Ltd  
Rdar Patel Vidyut Bhawan  
Vadodra Course, Vadodara - 390 007

**SUBMISSION OF PROPOSAL FOR HV/EHV TRANSMISSION LINE OF GETCO FOR PTCC  
APPROVAL OF 220KV S/C LINE FROM MOKHA TO M/S. CHROMENI STEELS PVT. LTD. ON  
AL-59 CONDUCTOR**

Ref your letter No CE (Project)/EE (Tr.-3)/2865 dt 14 Sep 2018 (copy att).

No Objection Certificate (NOC) is accorded based on inputs provided vide Map sheets received under your letter mentioned above.

Documents alongwith map sheets (in original) are returned herewith for your further necessary action.



(A Rawat)  
Maj  
GSO 1 (Comn)  
for SO-in-C

**Closures** : As above

**Copy to:**

Director (PTCC), CEA  
Power Communication Development Division  
PTCC Complex, 18-A Shaheed Jeet Singh Marg  
Connaught Place, New Delhi - 110016

for information.