



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-766/941-943

Date: 29.08.2019

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 M/C transmission line from Bhilad S/S to Sarigam S/S

- Ref:** (i) BSNL letter no. IC/MBI/PTCC/GUJ-2720 dated 06.04.2019
(ii) Western Railway letter no. SG.158/28/12/ (990) dated 04.06.2019
(iii) Defense letter no. B/46937/Sigs 7(b)/1211/ dated 30.10.2018

The low frequency induction on BSNL and Railway Telecommunication circuits as per details furnished vide above cited references (i) and (ii) respectively has been examined. The Soil Resistivity value has been taken as 3300 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 respectively. The screening factors as applicable have been considered. Defense has accorded NOC vide above Ref.(iii) for the above line (a copy enclosed at Annex-III).

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

Encl.: As above

Yours faithfully,

राधेबिन्दु उताप सिंह
(R P Singh)
29.08.19.
Director

Copy to:

- 1) GM(S&T), Office of CSTE, Western Railway, S&T Dept. , 5th Floor, Station Building, Churchgate, Mumbai – 400020 (Only Annex-II)
- 2) Chief Engineer(Projects), GETCO, Sardar Patel Vidyut Bhavan, Race Course, Vadodara – 390007

M/C

Annex-I
DET

CEA Office Case No. --- GUR-766	Map scale- 1 Cms = 500 Meters
DET (PTCC) Office Case No. 2720	Route Length- 6.399 KMs
Railway Off Case No.	Soil Resistivity- 3300 Ω -cm
Name of Power Line : 220 KV M/C Bhilad S/S - Sarigam line.	

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
1 BHILAD(DEHLI) EXCHANGE					
1A	Bhilad Exch-R/S-800x1+200x1+100*2 P	}	← 1V less than 430V →		
2A	Bhilad Exch-H/W-800x1+400*2+200*4+50*2 P				
3A	Bhilad Exch-Sanjan Rd.- -800x1+200*1 P				
4A	Bhilad Exch-Sarigam.- -800x1+400*1 P				
5A	Pillar Sarigam-Bank Rd.- -200*1 P				
6A	Pillar Sarigam-Sarigam Local -200*1 P				
7A	Bhilad Exch.-Local- 200*1 P				
2 SARIGAM (G) EXCHANGE					
1B	Sarigam(G)Exch.- Nagod Rd- 800*2+200*2+100*2 P	}	← 1V less than 430V →		
2B	Sarigam Exch- JBF- 8001+400*1 P				
3B	Sarigam Exch- GEB- 800*1+400*1 P				
4B	Sarigam Exch-local- 400*1+200*1+50*2 P				
5B	Sarigam Exch-local- 400*1+100*1 P				
3 PALI EXCHANGE					
1C	Pali Exch.- Local-100*1 P	}	← out of 115m →		
2C	Pali Exch.- Local-50*2 P				
3C	Pali Exch.- Local-50*1 P				
4 NAROLI EXCHANGE					
1D	Naroli Exch.- Pillar- 800*2 P	}	← out of 115m →		
2D	Pillar -Kokadphariya - 400*1+200*1 P				
3D	Pillar -Nilkamal - 200*1 P				
4D	Naroli Exch. -School - 200*1+100*1 P				
5D	Naroli Exch. -Local-400*1+100*1+50*4 P				

Signature & Seal of Concern SDE/DET

राघवेंद्र प्रताप सिंह
RAGHUVENDRA PRATAP SINGH
निदेशक/Director
केन्द्रीय विद्युत प्राधिकरण/C.E.A.
विद्युत मंत्रालय/Ministry of Power
भारत सरकार/Govt. of India
नई दिल्ली/New Delhi-65
29.09.15

File : 23019746

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

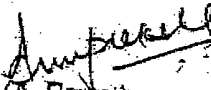
B/46937/Sigs 7(b)/1211/

30 Oct 2018

Chief Engineer (Project),
Gujarat Energy Transmission Corporation Ltd
Sardar Patel Vidyut Bhawan
Race Course, Vadodara - 390007

**SUBMISSION OF PROPOSALS FOR HV/EHV TRANSMISSION LINES OF GETCO
FOR PTCC APPROVAL OF 220 KV M/C BHILAD-SARIGAM LINE**

1. Ref your letter No CE (Project)/EE (Tr.-3)/334 dt 12 Jul 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 necessary action.


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

Enclosures : (As above)

Copy to:-

The Director (PTCC), GEA
Power Communication Development Division
NRPC Complex, 18-A Shaheed Jeet Singh Marg
Kalyana Sarai, New Delhi - 110016

for information.