



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/TNG-67/788-82

Date : 10.07.2019

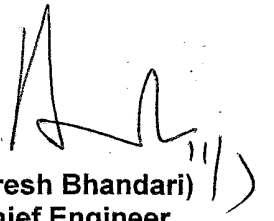
The Divisional Engineer Telecom (PTCC),
QA & Inspection (T&D) circle, BSNL,
1st floor, Raj Bhavan Exchange,
No.26, Sardar Patel Road,
Guindy, Chennai-600032

Subject: Induced Voltage Calculation in respect of PTCC proposal for 220 kV DC line from proposed 400/220 kV SS Ramadugu to proposed 220/11 kV SS Rampura

Reference: i) BSNL letter no. SR-PTCC/STS-2148/06 dated 27.12.2018
ii) South Central Railway letter no. SG.85/4/3/PTCC/SCRSTS201841 RTD dated 28.08.2018
iii) Defence letter no. B/46937/Sigs 7(b)/1440 dated 10.06.2019

Sir,
The instant PTCC proposal has been examined. The low frequency induction on telecom cables of BSNL and Block & Telecom circuits of South Central Railway with respect to details furnished vide above references have been computed. The Soil Resistivity (SR) value has been taken as 20,000 Ohm-cm. The voltages likely to be induced on paralleling telecom cables of BSNL and Block & Telecom circuits of South Central Railway under Single Line to Ground fault condition are enclosed at Annex-I & II respectively. The screening factors, as applicable, have been considered. Vide ref. (iii) above, Defence Authority have issued No Objection Certificate (NOC) (a copy enclosed as Annex-III).
Taking above into consideration, kindly take necessary action for PTCC route approval.

Encl.: As above


(Naresh Bhandari)
Chief Engineer

Copy to:

- 1) GM (S&T), South Central Railway, Head Quarters Office, Signal & Telecomm Branch, Rail Nilayam, Secunderabad, Telangana – 500025 (Annex – II only)
- 2) Executive Director, Lift Irrigation Schemes, TSTRANSCO, Vidyut Soudha, Hyderabad - 500082

M/C

Annex-I

CEA Case No. - TNG-67

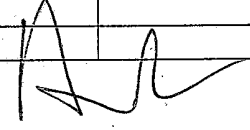
Case No. SRPTCC/STS/2148		SSA: Karimnagar				
Scale: 1:50000						
Name of Power line: 220 KV DC Line from proposed 400/220 KV Ramadgu SS to the proposed 220/11 KV Rampur SS -LF comments .						
Length: 31.806 KMs		Type of Cable: PIJF				
SR value: 20000 Ω -cm		Map Scale: 1cm = 500mtr				
No	Name of telecom line	LOP in KMs	MC in Ohms	FC in Amps	IV in Volts	Safe Separation Distance
Gopalraopet Exchange						
1	Exchange to Local	}	IV	LESS	THAN	430 V
2	Exchange to Gundi					
3	Exchange to Laxmipur Laxmipur					
4	Exchange to Laxmipur					
Gangadhara Exchange						
1	Exchange to Gangadhara X Road	}	IV	LESS	THAN	430 V
2	Exchange to Gangadhara X Road					
3	Exchange to Gangadhara X Road					
4	Exchange to Gangadhara X Road					
5	Exchange to Gangadhara X Road					
6	Exchange to Namalikonda					
7	Exchange to Namalikonda					
8	Exchange to Narayanapur					
9	Exchange to Narayanapur					
10	Exchange to Narayanapur					
11	Exchange to Gangadhara Village					
12	Exchange to Kurikyala					
13	Exchange to Mallapur					
Ramadugu Exchange						
1	Exchange to Srirampalli X Road	}	IV	LESS	THAN	430 V
2	Exchange to Choppadandi X Road					
3	Exchange to MRO Office					
4	Exchange to MRO Office					
Mallial Exchange						
1	Exchange to Markandeya Pillar	}	IV	LESS	THAN	430 V
2	Exchange to Local					
3	Exchange to Local					
4	Exchange to Local					
5	Exchange to Local					
मुख्य अभियन्ता/Chief Engineer केन्द्रीय विद्युत प्राधिकरण/C.E.A. सेवा भवन, आर.के. पुरम, Sewa Bhawan, R.K. Puram नई दिल्ली-66/New Delhi-66						

ANNEXURE – II

Case No.: TNG-67 Name of the Power line: 220 kV DC line from proposed 400/220 kV SS Ramadugu to proposed 220/11 kV SS Rampura	Map Scale : 1cm=500mts Total Length : 31.806 Km. Soil Resistivity : 20000 ohm-cm
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S.No	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.
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South Central Railway letter no. SG.85/4/3/PTCC/SCRTS201841 RTD dated 28.08.2018					
1	Korutla (KRLA) - Lingampet Jagityal (LPJL)	OUT OF PARALLELISM			0
2	Lingampet Jagityal (LPJL) - Gangadhara (GDRA)	17.7	0.0434	7000	304
3	Gangadhara (GDRA) – Karimnagar (KRMR)	9.5	0.0013	6500	8



मुख्य अभियन्ता/Chief Engineer
 केन्द्रीय विद्युत प्राधिकरण/C.E.A.
 सेवा भवन, आर.के. पुरम,
 Sewa Bhawan, R.K. Puram,
 नई दिल्ली-66/New Delhi-66

Annex-III TNG-67

Tele : 23019746

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

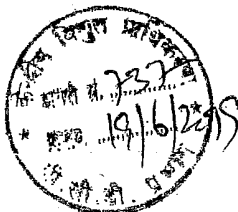
B/46937/Sigs 7(b)/1440

10 Jun 2019

Executive Director,
Lift Irrigation Schemes,
Transmission Corporation of Telangana Limited
TSTRANSCO
Vidyut Soudha,
Hyderabad - 500 082

**ERECTION OF 220KV DC LINE (31.806KM) FROM PROPOSED 400/220KV RAMADGU
SUBSTATION TO THE PROPOSED 220/11KV RAMPUR SUBSTATION-PTCC PROPOSALS-
REGARDING**

1. Ref your letter No Lr. No. ED(LIS)/SE(LI)/DE/ADE-6/PTCC-Ramadgu-Rampur/D.No.83/19 dt 30 Jan 2019 (copy att).
2. No Objection Certificate (NOC) is accorded based on inputs provided vide Map sheets received under your above mentioned letter.
3. Documents alongwith map sheets (in original) are returned herewith for your further necessary action.



(Handwritten signature)

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

Enclosures : (As above)

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.