



सत्यमेव जयते

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-82/ 77-77B

Date: 27.01.2020

The Divisional Engineer (PTCC), Southern Zone,  
Bharat Sanchar Nigam Limited (BSNL),  
O/o DET (PTCC), Inspection Circle,  
1<sup>st</sup> Floor, Raj Bavan Exchange No. 26,  
Sardar Patel Road, Guindy, Chennai-600032

**Subject:** Induced voltage calculation in respect of 220 kV TMDC line from 400/220 kV Gajwel SS to 220/11 kV Akkaram SS in Siddipet District.

**Ref. :** (i) TSTRANSCO Lr.No.CE(LIS)/SE(LIS)/DE3/AE/e-TSTLI-03/2017-18/PTCC/D.No.196/2019 Dated: 30.04.2019  
(ii) BSNL Ref. No. SR-PTCC/STS/2459/06 Dated: 18.10.2019  
(iii) South Central Railway Ref. No. SG./85/4/3/PTCC/SCRTS201928 RC Dated: 27.05.2019  
(iv) Defense Ref. No. B/46937/Sigs 7(b)/1600 Dated: 24.06.2019

The PTCC proposal submitted vide ref. (i) has been examined. The low frequency induction on BSNL cables as per details furnished vide ref. (ii) has been examined. The Soil Resistivity value has been taken as 10,000 Ohms-cm, as per data submitted by Power Authority. Voltages likely to be induced on paralleling BSNL cables under single line to ground fault condition are enclosed at Annex-I. The screening factors as applicable have been considered. South Central Railway has issued No objection vide above ref. (iii). In addition, Defense has accorded NOC vide above ref. (iv) for this line (a copy enclosed at Annex-II).

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

**Encl.:** As above.

*Upendra Kumar*  
29.01.2020

(Upendra Kumar)  
Chief Engineer, PCD

M/c

**Copy to:**

1. Chief Engineer, Lift Irrigation Schemes, TSTRANSCO, Vidyut Soudha, Hyderabad-500082.

S.R: 10,000 sqm

Case No. SRPTCC/STS/2459  
 Scale: 1 : 50000  
 SSA : Medak  
 Name of Power line: 220 KV TMDC Line from 400/220 KV Gajwel SS to 220/11 KV Akkaram SS in Siddipet Dist - LF comments .

Length: 7.061 Kms  
 Average SR value :  
 Type of Cable: PIJF

No	Name of telecom line	LOP in KMs	MC in Ohms	FC in Amps	IV in Volts	Safe Separation Distance
I	<b>Kodakandla Exchange</b>					
I	Exchange to Rimmanaguda (a)	}			IV less than 430V	
	Exchange to Rimmanaguda (b)					
	Exchange to Rimmanaguda (c)					
1A	Exchange to Kukurpally (a)					
	Exchange to Kukurpally (b)					
1B	Exchange to Kodakandla Local (a)					
	Exchange to Kodakandla Local (b)					
	Exchange to Kodakandla Local (c)					
1C	Exchange to Prasad seeds (a)					
II	<b>Thigul Exchange</b>					
2	Exchange to Chebarthy (a)	}			IV less than 430V	
	Exchange to Chebarthy (b)					
	Exchange to Chebarthy (c)					
2A	Exchange to Akkaram (a)					
	Exchange to Akkaram (b)					
2B	Exchange to Thigul Local (a)					
	Exchange to Thigul Local (b)					
	Exchange to Thigul Local (c)					
III	<b>Jagadevapur Exchange</b>					
3	Exchange to Allirajpet (a)	}			IV less than 430V	
	Exchange to Allirajpet (b)					
	Exchange to Allirajpet (c)					
3A	Exchange to Lingareddypally (a)					
3B	Exchange to Itikyala (a)					
	Exchange to Itikyala (b)					
3C	Exchange to Yerravally(a)					
	Exchange to Yerravally(b)					
IV	<b>Gajwel Exchange</b>					
4	Exchange to Darmareddypally (a)	}			IV less than 430V	
	Exchange to Darmareddypally (b)					
4A	Exchange to Jalgama (a)					
	Exchange to Jalgama (b)					
4B	Exchange to Kyasaram (a)					
	Exchange to Kyasaram (b)					
4C	Exchange to Pidched (a)					
	Exchange to Pidched (b)					
	Exchange to Pidched (c)					
4D	Exchange to Srigiripally (a)					
	Exchange to Srigiripally (b)					
	Exchange to Srigiripally (c)					
4E	Exchange to Pregnapur & RBL (a)					
	Exchange to Pregnapur & RBL (b)					
	Exchange to Pregnapur & RBL (c)					



Annexure-II

TNG-82

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)/1600

24 Jun 2019

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

**SUPPLY OF MATERIAL/EQUIPMENT, ERECTION, TESTING & COMMISSIONING,  
CONSTRUCTION & CIVIL WORKS OF (I) 2NO. 220KV BAYS AT EXISTING 400/220KV SS  
GAJWEL FOR ERECTION OF 220KV TMDC LINE TO PROPOSED 220/11KV AKKARAM SS  
(II) 220KV TMDC LINE FROM 400/220KV GAJWEL SS TO 220/11KV AKKARAM SS (III)  
220/11KV SUB-STATION AT AKKARAM IN SIDDIPET DISTRICT UNDER PACKAGE-14 OF  
KALESHWARAM LIFT IRRIGATION SCHEME ON TURNKEY BASIS-PTCC PROPOSALS-  
APPROVAL-REQUESTED-REG.**

1. Ref your letter No Lr. No. CE(LIS)/SE(LIS)/DE3/AE/e-TSTLI-03/2017-18/PTCC/D.No. 196/2019 dt 30 Apr 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.



(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.

