



सत्यमेव जयते

भारत सरकार
Government of India
विद्युत मंत्रालय
Ministry of Power
केन्द्रीय विद्युत प्राधिकरण
Central Electricity Authority
विद्युत प्रणाली संचार विकास प्रभाग
Power System Communication Development

CEA Case No. : TNG-149		
Induced Voltage (IV) calculation in respect of PTCC proposal of 220KV DC line from Shadnagar SS to M/s MCIPL (Length: 8.01 km O/H + 0.25 km UG) - regd.		
S. No	Reference No.	Dated
(i)	TCTL: CE(Const)/SE(Const-I)/DE-II/ADE-I/F.Microsoft,Makeguda/D.No.17/24	06.04.2024
(ii)	BSNL: SR-PTCC/STS5997/7	27.07.2024
(iii)	South Central Railway: SG.85/4/3/PTCC/SCR/2024-25/TS 7 RTD	19.07.2024
(iv)	Defense: B/46937/Sigs 7(b)/3872	16.07.2024

The PTCC proposal submitted vide above reference (i) has been examined. The LF induction on Block and Telecom circuits of South Central Railway with respect to details furnished vide above reference (iii) has been computed. The voltage likely to be induced on paralleling Block and Telecom circuits of South Central Railway under Single Line to Ground fault condition are enclosed at Annexure-I. The screening factors as applicable have been considered. DET, BSNL (Bangalore) has given NOC vide above reference (ii).

DG Signals, MoD have issued No Objection Certificate (NOC) vide reference (iv) (enclosed as Annexure II)

EPR Zones for proposed substations are mentioned below.

Name of the proposed SS	Half Diagonal Distance, D/2 (mts)	Fault Current, I (kA)	Resistance of earthmat, R (Ohms)	d (mts) at 430 V	d (mts) at 650 V	d (mts) at 7 kV	d (mts) at 10 kV
220kV Shadnagar SS	87.96	28	0.5	2776	1807	88	35
M/s MCIPL, Makeguda	53.5	28	0.86	2943	1928	131	75

As per the details submitted by BSNL vide above reference (ii), no telecom exchanges are lying in the EPR zone of the proposed substation.

Taking above into consideration, necessary action for issuance of PTCC route approval may be taken under intimation to this office.

Encl.: As above

Chief Engineer

To,

1.	Divisional Engineer (PTCC), Southern Zone	BSNL, Inspection Circle, 2nd Floor, Sanchar Complex, WMS Compound, Jayanagar 5th Block, 9th Main, 47th Cross ,Bangalore- 560041
2.	General Manager (S&T)	South Central Railway, O/o PCSTE, 7 th floor, Rail Nilayam, Secunderabad - 500025
3.	Chief Engineer Construction	TSTRANSCO, Vidyut Soudha, Hyderabad-500082

ANNEXURE-I

CEA Case No.: TNG-149 Name of the Power line: 220KV DC line from Shadnagar SS to M/s MCIPL			Map Scale : 1 cm= 500 m Total Length : 8.01 km O/H + 0.25 km UG S.R. Value : 25000 Ohm-cm		
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.
South Central Railway Letter No.- SG.85/4/3/PTCC/SCR/2024-25/TS 7 RTD Date: 19.07.2024					
1	Timmapur (TMX) – Shadnagar (SHNR)	7.6	0.016	16352	262
2	Shadnagar (SHNR) – Balanagar (BABR)	Out of Parallelism			

Annexure II

Directorate General of Signals
 Signals 7
 General Staff Branch **TNG-149**
 Integrated HQ of MoD, (Army)
 DHQ PO, New Delhi – 110011


B/46937/Sigs 7(b)/3872/

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6 Jul 2024

Chief Engineer, Construction
 Transmission Corporation of Telangana Limited
 Vidyut Soudha,
 Hyderabad – 500 082

**ERECTION OF 220KV DC LINE FROM 220KV SS SHADNAGAR TO
 M/S MICROSOFT CORPORATION (INDIA) PVT LTD AT MEKAGUDA FOR A
 LENGTH OF 8.26 KM (8.010KM OF OH LINE AND 0.25KM OF UNDERGROUND
 CABLE) IN RANGAREDDY DISTRICT – PTCC PROPOSALS-FORWARDED-
 REGARDING**

1. Refer your letter No CE(Const)/SE(Const-1)/DE-II/ADE-I/F.Microsoft, Mekaguda/D.No 17/24 dt 06 Apr 2024.
2. **No Objection Certificate (NOC) is accorded** based on inputs provided as per Map sheet received vide your letter mentioned above.
3. Documens alongwith map sheets (in original) are returned herewith for your further necessary action.


 (Puneet Lakhanpal)
 Lieutenant Colonel
 General Staff Officer Grade 1 (Communication)
 for Additional Director General (Telecommunication)

Enclosures : As above

Copy to :-

Chief Engineer, PSCD Division
 Central Electricity Authority
 Room No 702 (North Wing)
 Sewa Bhawan, R.K. Puram, Sector-1
 New Delhi-110066

The DET(PTCC), Northern Zone
 Bharat Sanchar Nigam Limited
 O/o PGM (North), QA & Inspection Circle,
 D-Tax Building, Eastern Court, Janpath
 New Delhi-110001

- for information

केन्द्रीय विद्युत प्राधिकरण
 पी.सी.डी. प्रभाग
 संख्या: B/46937/Sigs 7(b)/3872/