



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 Division

CEA Case No.: KNK-1128		
Induced Voltage (IV) calculation for PTCC proposal of 220 kV S/C line on D/C towers from existing 220/66/11 kV Chikkanagara S/s to proposed 220/11 kV Doddanagara S/s (Length-0.336 km)- regd.		
S. No	Reference No.	Dated
(i)	KPTCL: CEE/SLDC/PTCC/F-3737/811-19	21.05.2024
(ii)	KPTCL: CEE/SLDC/PTCC/F-3737&F-3739/11-05-06	10.06.2024
(iii)	KPTCL: CEE/SLDC/PTCC/F-3737&F-3739/1552-56	27.06.2024
(iv)	BSNL:SR-PTCC/SKT5912/2	21.06.2024
(v)	South Western Railway: SG/SWR/PTCC/F-3737/2761	03.06.2024

The PTCC proposal submitted vide reference (i) & (ii) has been examined. The LF induction on Block and Telecom circuits of South Western Railway with respect to details furnished vide above reference (v) has been computed. The voltage likely to be induced on paralleling Block and Telecom circuits of South Western Railway under Single Line to Ground fault condition are enclosed at Annexure-I. The screening factors as applicable have been considered. DET-PTCC, BSNL SZ has issued No Objection Certificate (NOC) vide reference (iv).

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 Doddanagara S/s	49	28	1.02	3205	2103	150	90

As per the details submitted by BSNL vide reference (iv) above, no telephone exchanges are falling in the EPR zone of the proposed substation.

Telecommunication details from Defense are pending and the power utility has shown urgency for charging of the line and requested for provisional PTCC approval vide above reference (iii). Taking above into consideration, necessary action regarding issuance of provisional PTCC approval for the subject cited transmission line may be taken under intimation to this office.

Encl.: As above

Chief Engineer

To,

1.	Divisional Engineer Telecom (PTCC), Southern Zone	BSNL, Inspection Circle, 2nd Floor, Sanchar Complex, WMS Compound, Jayanagar 5th Block, 9th Main, 47th Cross ,Bangalore-560041	
2.	PCSTE/SWR	Principal Chief Signal & Telecom Engineer, Rail Soudha, Gadag Road, Hubballi-580020	
3.	Director General of Signals	General Staff Branch, Integrated HQ, MoD (army), Sena Bhawan, DHQ, PO, New Delhi- 110 105	With a request to provide details of Telecom assets/ NOC at the earliest for issuance of final RAC.
4.	Member(Power), KPTCL	Chief Engineer Electricity, SLDC #28, Race Course Road, Bengaluru-560009	Copy for information

ANNEXURE-I

CEA Case No.: KNK-1128 Name of the Power line: 220 kV S/C line on D/C towers from existing 220/66/11 kV Chikkanagara S/s to proposed 220/11 kV Doddanagara S/s.			Map Scale : 1 cm= 500 m Total Length : 0.336 km 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 Western Railway Letter No: SG/SWR/PTCC/F-3737/2761			Dated 03.06.2024		
1.	KGVL to DOGL Section	-Out of Parallelism-			
2.	DOGL to SKLR Section	-Out of Parallelism-			
3.	SKLR to BLLT Section	0.25	0.00016	24200	4