



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-1129		
Induced Voltage (IV) calculation in respect of PTCC proposal of 220 kV SC line on D/C and M/C tower from 220/66/11 kV Chikkanagara SS to 220/11 kV Weir-7 SS of M/s VJNL at Maganahalli under Yettinahole Integrated Drinking Water Supply Scheme in Sakleshpura(19.331 km)- regd.		
S. No	Reference No.	Dated
(i)	KPTCL: CEE/SLDC/PTCC/F-3739/820-28	21.05.2024
(ii)	KPTCL: CEE/SLDC/PTCC/F-3737 & F-3739/1105-06	10.06.2024
(iii)	KPTCL: CEE/SLDC/PTCC/CEA/F-3737 &F-3739/1552-56	27.06.2024
(iv)	KPTCL: SEE/R&D/EEE/KCO-126/F-200(364),200(417),200(332)/2024-25/649-51	21.05.2024
(v)	BSNL:SR-PTCC/SKT5911/2	21.06.2024
(vi)	South Western Railway: SG/SWR/PTCC/F-3739/2762	03.06.2024

The PTCC proposal submitted vide reference (i), (ii), (iii) and (iv) has been examined. The LF induction on communication circuits of South Western Railway with respect to details furnished vide above reference (vi) have been computed. The voltage likely to be induced on paralleling communication cables 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 (v).

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
220/11kV Wier-7 SS of M/s VJNL	55.7	28	1	3571	2344	167	100

As per the details submitted by BSNL vide reference (v) 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-1129		Map Scale : 1 cm= 500 m			
Name of the Power line: 220kV SC line line on D/C and M/C tower from 220/66/11 kV Chikkanagara SS to 220/11 kV Weir-7 SS of M/s VJNL at Maganahalli		Total Length : 19.331 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-3739/2762 Dated 03.06.2024					
1.	SVGL-YDK	Out of Parallelism			
2.	YDK-KGVL	2.7	0.00347	14986	52
3.	KGVL-DOGL	7.8	0.06255	11191	700
4.	DOGL-SKLR	7.3	0.0831	15740	1308
5.	SKLR-BLLT	Out of Parallelism			