



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-1059A		
Induced Voltage (IV) calculation for PTCC proposal of 220 kV S/C transmission line on MCMV towers from existing 220/66/11 kV Chikkanagara SS to proposed 220/11 kV GIS at Kambardi Coffee Estate (WEIR-1) Shirdahally (DC-1) in Sakaleshpura Taluk, Hassan (Length: 7.5 Kms) - regd.		
S. No	Reference No.	Dated
(i)	CEE/SLDC/PTCC/F-3692/7919-27	06.01.2024
(ii)	BSNL: SR-PTCC/SKT5632/2	24.04.2024
(iii)	South Western Railway: SG/SWR/PTCC/F-3692/2667	15.04.2024
(iv)	Defense: B/46937/Sigs 7(b)/3660	01.04.2024

The PTCC proposal submitted vide reference (i) has been examined. The LF induction on communication circuits of South Western Railway with respect to details furnished vide above reference (iii) has 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), SZ, BSNL vide reference (ii) has intimated that No telecom lines/ cables or assets are existing within the 8 km boundary of the proposed transmission line. DG Signals, MoD have issued No Objection Certificate (NOC) for charging of the line vide reference (iv).

EPR zone for the proposed substation is mentioned below:

Name of the proposed Substation	Half diagonal distance, D/2 (mts)	Fault Current I (KA)	Resistance of Earth Mat, R (ohms)	d (mts) at 430 V	d (mts) at 650 V	d (mts) at 7kV	d (mts) at 10kV
220/11 kV GIS at Kambardi Coffee Estate (WEIR-1) Shirdahally (DC-1)	42.57	20	0.965	1868	1221	75	40

As per the details submitted by BSNL vide reference (ii) above, no telephone exchanges are falling 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.

Chief Engineer

To,

1.	Divisional Engineer (PTCC), Southern Zone	O/o CGM, QA&I circle, 2 nd floor, Sanchar Complex, WMS Compound, Jayanagar, 5 th block, 9 th main, 47 th cross, Bengaluru- 560 041	
2.	GM (S&T), South Western Railway	South Western Railway Headquarter, Rail Soudha, Hubballi – 580 023	
3.	Chief Engineer, Electricity	KPTCL, State Load Despatch Centre, #28, R.C. Cross Road, Bangalore - 560009	Copy for information

ANNEXURE-I

CEA Case No.: KNK-1059A			Map Scale : 1 cm= 500 m		
Name of the Power line: 220 kV S/C transmission line on MCMV towers from existing 220/66/11 kV Chikkanagara SS to proposed 220/11 kV GIS at Kambardi Coffee Estate (WEIR-1) Shirdahally (DC-1) in Sakaleshpura Taluk, Hassan			Total Length : 7.5 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 : SG/SWR/PTCC/F-3692/2667 Date: 15.04.2024					
1	KGVL – DOGL	Out of parallelism			
2	DOGL – SKLR	5.55	0.065	6877	447
3	SKLR - BLLT	0.5	0.00267	16853	45