



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-1110		
Induced Voltage (IV) Calculation for PTCC proposal of 33 kV S/C line on RSJ Pole from proposed 220/33 kV 153.6 MW Hybrid Power Project PSS of M/s KSPPL at Alwandi village, Koppal to proposed Vestas Feeder No. 3 WTGs comprising of 04 Nos. of 33 kV Unit substation of M/s KSPPL at Alwandi village, Koppal (Length: 7.492 km)		
S. No	Reference No.	Dated
(i)	KSPPL/KOPPAL/CEA/PTCC/WIND/03	04.04.2024
(ii)	BSNL: SR-PTCC/SKT5981/2	02.07.2024
(iii)	South Western Railway: SG/SWR/PTCC/KNK1110/2777	22.08.2024
(iv)	Defense: B/46937/Sigs 7(b)/3853	12.06.2024

The PTCC proposal submitted vide reference (i) has been examined. The LF induction on communication circuits of BSNL with respect to details furnished vide above references (ii) has been computed. The voltage likely to be induced on paralleling communication cables of BSNL under Single Line to Ground fault condition are enclosed at Annexure-I. The screening factors as applicable have been considered.

PCSTE, SWR vide reference (iii) and DG Signals, MoD vide reference (iv) has given their NOC for charging the line.

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
220/33 kV 153.6 MW Hybrid Power Project PSS of M/s KSPPL at Alwandi village, Koppal	88	44.7	0.0428	304	171	NA	NA
33 kV Wind Power Unit substation of M/s KSPPL at	31.835	25	0.176	294	184	NA	NA

Alwandi village, Koppal							
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As per the details submitted by BSNL, No Telephone exchange is falling within the EPR zone of 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	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.	M/s Kleio Solar Power Private Limited	9 th Floor, My Home Twitza, Plot No. 30/A, TSIC Hyderabad Knowledge City, Raidurg, Hyderabad – 500 081	Copy for information

ANNEXURE-I

CEA Case No.: KNK-1110 Name of the Power line: 33 kV S/C line on RSJ Pole from proposed 220/33 kV 153.6 MW Hybrid Power Project PSS of M/s KSPPL at Alwandi village, Koppal to proposed Vestas Feeder No. 3 WTGs comprising of 04 Nos. of 33 kV Unit substation of M/s KSPPL at Alwandi village, Koppal			Map Scale : 1 cm= 500 m Total Length : 7.492 kms S.R. Value : 7500 Ohm-cm		
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.
BSNL Letter No SR-PTCC/SKT5981/2 Date: 02.07.2024					
1	Alwandi TE to Bus Stand road				IV less than 430 V