



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-1089		
Induced Voltage (IV) calculation for PTCC proposal of 220 kV S/C line on D/C towers from 220/33 kV 300.3 MW Wind Energy PSS of M/s Zentaris Renewable Energy Pvt. Ltd. At Harakabhavi Village, Vijaynagar to 400/220 kV Hiriyur (PG) S/s (Length-93.595 km)- regd.		
S. No	Reference No.	Dated
(i)	ZREPL: ZREPL/HRB-HRY/300.3MW/PTCC-1	23.02.2024
(ii)	ZREPL: ZREPL/33kV/PTCC/210824	21.08.2024
(iii)	BSNL:SR-PTCC/SKT5943/2	28.06.2024
(iv)	South Western Railway: SG/SWR/PTCC/KNK1089/2763	20.06.2024

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 (iv) 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 (iii).

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 M/s Zentaris PSS	133	28.5	0.26	2159	1383	8	NA

As per the details submitted by BSNL vide reference (iii) 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 (ii). 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.	Authorized Personal	M/s Zentaris Renewable Energy Pvt. Ltd. Plot No N46, House No. 4-9-10 HMT Nagar, Hyderabad	Copy for information

ANNEXURE-I

CEA Case No.: KNK-1089		Map Scale : 1 cm= 500 m			
Name of the Power line: 220 kV S/C line on D/C towers from 220/33 kV 300.3 MW Wind Energy PSS of M/s Zentaris Renewable Energy Pvt. Ltd. At Harakabhavi Village, Vijaynagar to 400/220 kV Hiriyur (PG) S/s.		Total Length : 93.595 km			
		S.R. Value : 30000 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/KNK1089/2763				Dated 20.06.2024	
1.	CHKE to BAHI Section	2.80	0.003	15800	47
2.	BAHI to CTA Section	-Out of Parallelism-			