



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-1183		
Induced Voltage (IV) Calculation for PTCC proposal of 33 kV S/C line from proposed Feeder No. 1 connecting 05 Nos. of WTGs with 05x3600 kVA, 33/0.95 kV Unit Transformers of M/s Zenataris Renewable Energy Private Limited to existing 220/33 kV 2*160 MVA pooling S/s of M/s ZREPL at Harakabhavi village in Kudligi Taluk, Bellari District (Length: 6.565 kms)		
S. No	Reference No.	Dated
(i)	ZREPL/BALLARI/CEA/PTCC/WIND/01	07.05.2025
(ii)	BSNL: SR-PTCC/KNK-1183/2	24.07.2025

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 under Single Line to Ground fault condition are enclosed at Annexure-I. The screening factors as applicable have been considered.

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
0.95/33 kV WTG Unit Transformer	5.54	25	0.814	257	168	11	6

As per the details submitted by BSNL, No telephone exchanges are falling within the EPR zone of proposed substation.

Taking the above into consideration, the values of Induced Voltages may be examined, and further information may be sent to the undersigned for issuance of Route Approval Certificate.

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 Zenataris Renewable Energy Private Limited	Plot No. N46, House No. 4-9-10, HMT Nagar, Hyderabad – 500 076	Copy for information

ANNEXURE-I

CEA Case No.: KNK-1183					
Name of the Power line: 33 kV S/C line from proposed Feeder No. 1 connecting 05 Nos. of WTGs with 05x3600 kVA, 33/0.95 kV Unit Transformers of M/s Zenataris Renewable Energy Private Limited to existing 220/33 kV 2*160 MVA pooling S/s of M/s ZREPL at Harakabhavi village in Kudligi Taluk, Bellari District		Map Scale : 1 cm= 500 m			
		Total Length : 6.565 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.
BSNL: SR-PTCC/KNK-1183/2 Date: 24.07.2025					
1	CJ Halli to MB Ayyanahalli (A-A1)		Out of parallelism		
2	CJ Halli to Makanaduku (A-A2)		Out of parallelism		
3	Banvikal to Sooladahalli (B-B1)		IV less than 430 V		
4	Harakabhavi to Belekatta (C-C1)		IV less than 430 V		
5	Harakabhavi to Santanahalli (C-C2)		Out of parallelism		