



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. : MRA-1243		
Induced Voltage (IV) Calculation for PTCC proposal of 220 kV S/C line on D/C tower from 220/33 kV 350 MW Wind power PSS of M/s Serentica Renewables India 4 Limited at Tanduwadi village to 400/220 kV Kallam PS (Length: 13.707 kms)		
S. No	Reference No.	Dated
(i)	SRIPL/TD/220kV/MISCELLANEOUS/01/03	13.03.2024
(ii)	BSNL: IC/MBI/PTCC/MRA-2634/03	11.07.2024
(iii)	Central Railway: N.153/PTCC/220kV/MAH-875	11.07.2024
(iv)	Defense: B/46937/Sigs 7(b)/3824	04.06.2024

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 reference (ii) has been computed. The voltage likely to be induced on paralleling communication circuits of BSNL under Single Line to Ground fault condition are enclosed at Annexure-I. The screening factors as applicable have been considered.

GM (S&T), Central Railway vide reference (iii) and DG Signals, MoD vide reference (iv) have issued 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 350 MW Wind power PSS of M/s SRI4PL at Tanduwadi village	125.25	21.5	0.478	2868	1855	59	3

As per the details submitted by BSNL vide above reference (ii), No Telephone exchange is falling in 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), Western Zone	QA & Inspection circle, 1 st floor, D- wing, BSNL Admin Bldg., Junu Tara Road, Santacruz (West), Mumbai-400054	
2.	M/s Serentica Renewables India 4 Limited	DLF Cyber Park, 9 th Floor, Tower-B, Udyog Vihar, Phase-III, Sector-20, Gurugram – 122 008	Copy for information

ANNEXURE-I

CEA Case No.: MRA-1243 Name of the Power line: 220 kV S/C line on D/C tower from 220/33 kV 350 MW Wind power PSS of M/s Serentica Renewables India 4 Limited at Tanduwadi village to 400/220 kV Kallam PS			Map Scale : 1 cm= 500 m Total Length : 13.707 kms 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.
BSNL: IC/MBI/PTCC/MRA-2634/03 Dated: 11.07.2024					
1	Armored 6F OF cables (Point U to Point F)		Out of parallelism		