

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-1244

Induced Voltage (IV) Calculation for PTCC proposal of 33 kV (partially S/C and partially D/C) Feeder-01 on RSJ Pole with AL-59 Dog, Panther & ECO Panther conductor from proposed 350 MW 220/33 kV PSS of M/s SRI4PL at Shendi Village, Dharashiv to 33/0.69 kV Wind power unit substation at PK-05 (Length: 18.184 km)

S. No	Reference No.	Dated
(i)	SRIPL-4/33kV/PTCC/F1	13.04.2024
(ii)	Everrenew E-mail:	23.08.2024
(iii)	BSNL: IC/MBI/PTCC/MRA-2640/03	13.07.2024
(iv)	Central Railway: N.153/PTCC/33kV/MAH-883	25.07.2024
(v)	Defense: B/46937/Sigs7(b)/3919	16.07.2024

The PTCC proposal submitted vide reference (i) and (ii) has been examined. The LF induction on communication circuits of BSNL with respect to details furnished vide above references (iii) 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.

DG Signals, MoD vide above reference (v) have issued their No Objection Certificate (NOC) for charging of the line.

EPR Zones for proposed substations are mentioned below:

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Name of the	Half	Fault	Resistance	d (mts)	d (mts)	d (mts)	d (mts)
proposed SS	Diagonal	Current,	of	at 430	at 650 V	at 7 kV	at 10
	Distance,	I (kA)	earthmat,	V			kV
	D/2 (mts)		R (Ohms)				
220/33 kV PSS of	125.25	21.5	0.478	2868	1855	59	3
M/s SRI4PL at							
Shendi Village,							
Dharashiv							
33/0.69 kV Wind	12.095	24.5	0.22	140	88	NA	NA
power unit							
substation							

As per the details submitted by BSNL vide reference (iii) above, no telephone exchange is falling in the EPR zone of the proposed substations.

Taking the 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	QA & Inspection circle,	
	(PTCC), Western Zone	1st floor, D- wing, BSNL Admin Bldg.,	
Junu Tara Road, Santacruz		Junu Tara Road, Santacruz (West),	
		Mumbai-400054	
	M/s Serentica	DLF Cyber Park, 9th floor, Tower-B, Udyog	
2.	Renewables India 4	Vihar, Phase-III, Sector-20, Gurugram –	Copy for information
	Private Limited	122 008	

ANNEXURE-I

CEA Ca	se No.: MRA-1244				
Name of the Power line: 33 kV (partially S/C and partially D/C) Feeder-		Map Scale : 1 cm= 500 m Total Length : 18.184 km			
01 on RSJ Pole with AL-59 Dog, Panther & ECO Panther conductor from					
	proposed 350 MW 220/33 kV PSS of M/s SRI4PL at Shendi Village, Dharashiv to 33/0.69 kV Wind power unit substation at PK-05		S.R. Value : 25000 Ohm-cm		
		Length of		Effective	
		Parallelis	Mutual	Fault	I.V
		m	Coupling	current	in
S.No.	Telecom. Details	in Km.	in Ohms.	in Amps.	Volts.
	BSNL Letter No IC/MBI/PTCC/	MRA-2640/03	Date: 13.07.20)24	
	Izora fata. – Izora road BTS (L – M)		Out of parallelism		