

I/31964/2023



सत्यमेव जयते



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भारत सरकार
Government of India
विद्युत मंत्रालय
Ministry of Power
केन्द्रीय विद्युत प्राधिकरण
Central Electricity Authority
विद्युत संचार विकास प्रभाग
Power Communication Development Division

CEA Case No. : TN-722		
Induced Voltage (IV) Calculation for PTCC proposal of 33 kV SC OH line for Feeder No. 4 on RSJ Pole with AL59 Panther conductor AAAC Dog conductor from 220/33 kV JSW Tuticorin – B S/s at Arungulam village to proposed 33 kV Wind Power unit substation tapping point TUT-952 (Length: 22.7 km)		
S. No	Reference No.	Dated
(i)	JSWREL/33kV-PTCC/SC-04	04.03.2023
(ii)	BSNL: SR-PTCC/STN 5059/05	21.07.2023
(iii)	Southern Railway: W.384/3/6/29(TN)	13.07.2023
(iv)	Defense: B/46937/Sigs 7(b)/3282	11.08.2023

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), Southern Railway vide above reference (iii) and DG Signals, MoD, vide above reference (iv) (Annexure-II) have issued their No Objection Certificate (NOC) for charging of the line.

EPR zone for the proposed substation is mentioned below:

Name of the proposed Substation	Half diagonal distance , D/2 (mts)	Fault Current I (KA)	Resistance of Earth Mat, R (ohms)	d (mts) at 430 V	d (mts) at 650 V	d (mts) at 7kV	d (mts) at 10kV
230/33 kV JSW Tuticorin B Wind Power PSS-B of M/s JSW Renew Energy Ltd at Arungulam village, Vilathikulam	92.84	42	0.0985	800	498	NA	NA
33 kV Wind Power unit substation	14	18.75	0.334	190	121	NA	NA

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As per the details submitted by BSNL vide reference (ii) above, no telephone exchanges are falling in the EPR zone of the proposed substation.

Taking above into consideration, necessary action regarding issuance of PTCC approval for the subject cited transmission line may be taken under intimation to this office.

Encl.: As above

Director

To,

1.	Divisional Engineer (PTCC), Southern Zone	BSNL, Inspection Circle, 1st Floor, Raj Bhavan Exchange No. 26, Sardar Patel Road, Guindy, Chennai-600032	
2.	M/s JSW Renew Energy Limited	JSW Centre, Bandra Kurla Complex, Bandra (East), Mumbai – 400 051	For information

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ANNEXURE-I

CEA Case No.: TN-722 Name of the Power line: 33 kV SC OH line for Feeder No. 4 on RSJ Pole with AL59 Panther conductor AAAC Dog conductor from 220/33 kV JSW Tuticorin – B S/s at Arungulam village to proposed 33 kV Wind Power unit substation tapping point TUT-952			Map Scale : 1 cm= 500 m Total Length : 22.7 km S.R. Value : 20000 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/STN 5059/05 Dated: 21.07.2023

VILATHIKULAM TELEPHONE EXCHANGE					
1	EXGE to P.23 to DP.2308			IV less than 430 V	
2	EXGE to P.23 to DP.2309				
3	EXGE to P.23 to DP.2310				
4	EXGE to P.23 to DP.2311				
5	EXGE to P.23 to DP.2312				
6	EXGE to P.26 to DP.2635A			Out of parallelism	
7	EXGE to P.26 to DP.2635B				
8	EXGE to P.26 to DP.2637				
9	EXGE to P.26 to DP.2638				