



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.: TN-745		
Induced Voltage (IV) Calculation for PTCC proposal of 33 kV S/C Feeder-01 on RSJ pole from 220/33 kV JSW Dharapuram B Substations at Peramium Village to JSW Wind Power Unit Substations – DHP 164 (Length: 27.7 kms)		
S. No	Reference No.	Dated
(i)	JSWNET/33kV PTCC-150 MW/DPM/SC-1	09.02.2024
(ii)	JSW E-mail	28.03.2024
(iii)	JSW E-mail	15.04.2024
(iv)	BSNL: SR-PTCC/STN 5600/04	15.03.2024
(v)	Southern Railway: W.384/3/6/36(TN)	11.03.2024

The PTCC proposal submitted vide reference (i) and (iii) has been examined. The LF induction on communication circuits of BSNL with respect to details furnished vide above references (iv) 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. Southern Railway vide reference (v) has 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
220/33 kV JSW Dharapuram B Substations at Peramium Village	83.33	20	0.625	2338	1519	65	21
33/0.69 kV Wind Power unit substation	14.7	10.1	0.79	258	166	2	NA

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

Telecommunication details from DG Signals, MoD are awaited however, vide reference (ii) above, M/s JSWNET have informed that all construction related work of the transmission line has

completed and the line is awaiting charging due to want of PTCC approval. So as to charge the subject cited transmission line as per schedule, M/s JSWNEEL has requested for issuance of provisional PTCC clearance and has submitted an undertaking that in case of any impact on telecom asset/ personnel of Defense due to charging of this transmission line, JSWNEEL shall take all remedial action.

Taking above into consideration, necessary action for issuance of provisional PTCC route approval may be taken under intimation to this office. LF induction on telecommunication circuits of Defense, will be communicated after the receipt of details from DG Signals, MoD.

Encl.: As above

Chief Engineer

To,

1.	Divisional Engineer (PTCC), Southern Zone	O/o Chief General Manager, Core Network Transmission- South, No.11, Link Road, Ganapathy Colony, Guindy Industrial Estate, Guindy, Chennai.600 032.	
2.	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 IV calculation and issuance of final RAC.
3.	M/s JSW Neo Energy Limited	JSW Centre, Bandra Kurla Complex, bandra (East), Mumbai – 400 051	For information

ANNEXURE-I

CEA Case No.: TN-745 Name of the Power line: 33 kV S/C Feeder-01 on RSJ pole from 220/33 kV JSW Dharapuram B Substations at Peramium Village to JSW Wind Power Unit Substations – DHP 164			Map Scale : 1 cm= 500 m Total Length : 27.7 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 Letter No SR-PTCC/STN 5600/04 Date: 15.03.2024					
Utyhiyur Telephone Exchange					
1.	Exge to P21 to DP.2112				IV less than 430 V
2.	Exge to P22 to DP.2212				
3.	Exge to P23 to DP.2330				
4.	Exge to P25 to DP.2507				
5.	Exge to P26 to DP.2620				
6.	Exge to P27 to DP.2719C				
7.	Exge to P28 to DP.2811				