

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-732				
Induced Voltage (IV) Calculation for PTCC proposal for 33 kV D/C OH line for Feeder No.				
1 & 2 on RSJ Pole with AL59 Panther conductor and AAAC Dog conductor from 220/33				
kV JSW Tuticorin – B S/s at Savlaperi village, to proposed 33 kV JSW Wind Power unit substation tapping point TUT-293 (Length: 24.70 km)				
S. No	Reference No.	Dated		
(i)	JSWREL/33kV-PTCC/DC-01	15.04.2023		
(ii)	BSNL: SR-PTCC/STN 5069/05	16.09.2023		
(iii)	Southern Railway: W.384/3/6/23(TN)	12.07.2023		
(iv)	Defense: B/46937/Sigs 7(b)/3314	04.07.2023		

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 Savlaperi village	82.54	35	0.0344	149	70	NA	NA
33 kV Wind Power unit substation	14	13.374	0.391	156	99	NA	NA

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

ANNEXURE-I

CEA Case No.: TN-732

Name of the Power line: 33 kV D/C OH line for Feeder No. 1 & 2 on RSJ Pole with AL59 Panther conductor and AAAC Dog conductor from

220/33 kV JSW Tuticorin – B S/s at Savlaperi village, to proposed 33 kV

JSW Wind Power unit substation tapping point TUT-293

Map Scale : 1 cm = 500 m

Total Length: 24.7 km

S.R. Value: 15000 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.
1			1			1

	BSNL: SR-PTCC/STN 5069/05 Dated: 16.09.2023				
KAYATHAR TELEPHONE EXCHANGE					
1	EXGE to DP.0003				
2	EXGE to DP.0006				
3	EXGE to DP.0012				
4	EXGE to DP.0023				
5	EXGE to P.22 to DP.2208				
6	EXGE to P.22 to DP.2219	Out of parallelism			
7	EXGE to P.22 to DP.2233				
8	EXGE to P.22 to DP.2247				
9	EXGE to P.25 to DP.2503				
10	EXGE to P.25 to DP.2522				
11	EXGE to P.25 to DP.2539				
12	EXGE to P.25 to DP.2549				
13	EXGE to P.25 to DP.2533				

Tele: 23019746File No.CEA-PS-17-11(14)/49/2023-PCD Division

1/32808/2024

Signals 7

General Staff Branch

TN-732

Integrated HQ of MoD, (Army) DHQ PO, New Delhi – 110011

B/46937/Sigs 7(b)/3314/

04 Jul 2023

JSW Renew Energy Limited

Regd. Office: JSW Centre, Bandra Kurla Complex

Bandra (East), Mumbai-400051

PTCC PROPOSAL FOR CONSTRUCTION OF PROPOSED 33KV DOUBLE CIRCUIT LINE FOR FEEDER NO-DC: 01&02 FROM PROPOSED M/S JSW RENEW ENERGY LTD FOR TOTAL CONNECTIVITY 540MW AT PART OF PROJECT 330MW TUTICORIN-I 230/33KV POOLING SUBSTATIONS WIND POWER PROJECT AT THOOTHUKUDI DISTRICT

- 1. Refer your letter No JSWREL/33kV-PTCC/DC-01 dt 15 Apr 2023 (copy att).
- 2. **No Objection Certificate (NOC) is accorded** based on inputs provided as per Map sheets received vide your letter mentioned above.
- 3. Documents alongwith map sheets (in original) are returned herewith for your further necessary action.

(SP Choyal) Lt Col GSO 1 (Coord) for ADG T

Enclosures: As above

Copy to :-

The Divisional Engineer (PTCC)
'D Wing, 3rd Floor, Admn Bdg
Telecom Complex,
Juhu Tara Road,
Santracruz West, Mumbai – 400054

- for information

The Director (PTCC), CEA
Power Communication Development Division
NRPC Complex, 18-A Shaheed Jeet Singh Marg
Katwaria Sarai, New Delhi – 110016

The DET(PTCC), Northern Zone
Bharat Sanchar Nigam Limited
Olo PGM (North), QA & Inspection Circle,
D-Tax Building, Eastern Court, Janpath
New Delhi-110001

/ D

Central Electricity Authority

Sh. Akshay, 20 Olew 27 PPU. 3167