





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

	e No.: TN-720		
Induced Voltage (IV) Calculation for PTCC proposal for 33 kV SC OH line for Feeder No. 2 on RSJ Pole with AL59 panther conductor AAAC Dog conductor from 230/33 kV JSW Tuticorin – B S/s at Arunkulam village to proposed 33 kV Wind Power unit substation tapping point TUT-624 (Length: 19.6 km)- regd.			
S. No	Reference No.	Dated	
(i)	JSWREL/33kV-PTCC/SC-02	04.03.2023	
(ii)	BSNL: SR-PTCC/STN 5076/05	21.07.2023	
(iii)	Southern Railway: W.384/3/6/27(TN)	13.07.2023	
(iv)	Defense: B/46937/Sigs 7(b)/3280	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	8.93	18.52	0.334	120	76	NA	NA

File No.CEA-PS-17-11(14)/38/2023-PCD Division

1/30823/2023

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

eM (Mar. 4. 4) 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

S.No.

ANNEXURE-I

CEA Case No.: TN-720

Map Scale

: 1 cm = 500 m

in Amps.

Telecom. Details

Total Length: 19.6 km

Name of the Power line: 400 KV DC line with TWIN Moose conductor and 230 KV DC line with Zebra conductor in Multi Circuit towers from

S.R. Value: 20000 Ohm-cm

Mutual

Coupling

in Ohms.

Manali 400 KV GIS SS to Puliyanthope 400 KV GIS SS.

_		
	Effective	
	Fault	I.V
	current	in

Volts.

BSNL: SR-PTCC/STN 5076/05 Dated: 21.07.2023

Length of

Parallelis

m

in Km.

ETTAYAPURAM TELEPHONE EXCHANGE

1	EXCHANGE to DP.0001
2	EXCHANGE to DP.0002
3	EXCHANGE to DP.0004
4	EXCHANGE to DP.0012
5	EXCHANGE to P.21 to DP.2103
6	EXCHANGE to P.22 to DP.2214
7	EXCHANGE to P.22 to DP.2216
8	EXCHANGE to 2,22 to DP.2218
9	EXCHANGE to P.22 to DP.2220
10	EXCHANGE to P.23 to DP.2306
11	EXCHANGE to P.23 to DP.2307
12	EXCHANGE to P.23 to DP.2309
13	EXCHANGE to P.23 to DP.2312
14	EXCHANGE to P.23 to DP.2315
15	EXCHANGE to P.23 to DP.2316
16	EXCHANGE to P.23 to DP.2318
17	EXCHANGE to P.23 to DP.2319

IV Less than 430 V

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10	DVOVANCE	
18	EXCHANGE to P.24 to DP.2420	
19	EXCHANGE to P.24 to DP.2431	
20	EXCHANGE to P.24 to DP.2432	
21	EXCHANGE to P.25 to DP.2519	
22	EXCHANGE to P.25 to DP.2520	
23	EXCHANGE to P.25 to DP.2521A	
24	EXCHANGE to P.25 to DP.2523A	IV Less than 430 V
25	EXCHANGE to P.25 to DP.2525	· Less than 450 v
26	EXCHANGE to P.25 to DP.2526A	
27	EXCHANGE to P.25 to DP.2528	
28	EXCHANGE to P.25 to DP.2530	
29	EXCHANGE to P.25 to DP.2531A	
30	EXCHANGE to P.25 to DP.2539	
31	EXCHANGE to P.25 to DP.2540	
32	EXCHANGE to P.25 to DP.2541	
33	EXCHANGE to P.25 to DP.2542	
34	EXCHANGE to P.25 to DP.2543A	
35	EXCHANGE to P.25 to DP.2543B	
36	EXCHANGE to P.21 to DP.2122	
KOVILPA	TTI TELEPHONE EXCHANGE	
1	EXCHANGE to P.56 to DP.5603	IV Less than 430 V

теле: 23079File No.CEA-PS-17-11(14)/38/2023-PCD ENVISOR General of Signals

1/30823/2023

Signals 7 General Staff Branch Integrated HQ of MoD, (Army) DHQ PO, New Delhi - 110011

B/46937/Sigs 7(b)/3280/

JSW Renew Energy Limited Regd. Office: JSW Centre, Bandra Kurla Complex Bandra (East), Mumbai-400051

PTCC PROPOSAL FOR CONSTRUCTION OF PROPOSED 33KV SINGLE CIRCUIT LINE FOR FEEDER NO-2 FROM PROPOSED M/S JSW RENEW ENERGY LTD FOR TOTAL CONNECTIVITY 540MW AT PART OF PROJECT 210MW TUTICORIN II 230/33KV POOLING SUBSTATIONS WIND POWER PROJECT AT THOOTHUKUDI DISTRICT

- Refer your letter No JSWREL/33kV-PTCC/SC-02 dt 04 Mar 2023 (copy att). 1.
- No Objection Certificate (NOC) is accorded based on inputs provided as per Map sheets received vide your letter mentioned above.
- Documents alongwith map sheets (in original) are returned herewith for your further necessary action.

Choyal) Lieutenant Colonel

General Staff Officer Grade 1 (Communication) for Additional Director General (Telecommunication)

Enclosures: As above

Copy to :-

The Divisional Engineer (PTCC) 'D' Wing, 3rd Floor, Admn Bdg Telecom Complex. Juhu Tara Road,

Santracruz West, Mumbai - 400054

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 O/o PGM (North), QA & Inspection Circle, D-Tax Building, Eastern Court, Janpath New Delhi-110001

- for information

Central Electricity Authority

Sh. Akshing Di