सत्यमेव जयते

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

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CEA Case No . : TN-733		
Induced Voltage (IV) Calculation for PTCC proposal of 33 kV D/C OH line for Feeder No. 3 & 4 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-135 (Length: 18.15 km)		
S. No	**Reference No.**	**Dated**
(i)	JSWREL/33kV-PTCC/330 MW/DC-02	15.04.2023
(ii)	BSNL: SR-PTCC/STN 5070/04	25.08.2023
(iii)	Southern Railway: W.384/3/6/24(TN)	12.07.2023
(iv)	Defense: B/46937/Sigs 7(b)/3313	04.07.2023

The PTCC proposal submitted vide reference (i) has been examined. The LF induction on communication circuits of BSNL and Southern Railway with respect to details furnished vide above reference (ii) and (iii) respectively have been computed. The voltage likely to be induced on paralleling communication circuits of BSNL and Southern Railway under Single Line to Ground fault condition are enclosed at Annexure-I and Annexure-II respectively. The screening factors as applicable have been considered.

DG Signals, MoD, vide above reference (iv) (Annexure-III) 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	0.476	193	123	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 Engineer (PTCC), Southern Zone	BSNL, Inspection Circle,1st Floor, Raj Bhavan Exchange No. 26, Sardar Patel Road, Guindy, Chennai-600032	
2.	GM (S&T)	Southern Railway, Headquarter office, S&T Branch, Chennai	
3.	M/s JSW Renew Energy Limited	JSW Centre, Bandra Kurla Complex, Bandra (East), Mumbai – 400 051	For information

ANNEXURE-I

CEA Case No.: TN-733 **Name of the Power line**: 33 kV D/C OH line for Feeder No. 3 & 4 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-135	**Map Scale :** 1 cm= 500 m **Total Length :** 18.15 km **S.R. Value :** 15000 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 5070/04 Dated: 25.08.2023					
KAYATHAR TELEPHONE EXCHANGE					
1	EXGE to DP.0003	Out of parallelism			
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				
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				
NALATTINPUTHUR TELEPHONE EXCHANGE					
1	EXGE to DP.0007				
2	EXGE to DP.0013				
3	EXGE to P.21 to DP.2103				

4	EXGE to P.21 to DP.2109	Out of parallelism
5	EXGE to P.21 to DP.2110	
6	EXGE to P.21 to DP.2112	
7	EXGE to P.21 to DP.2123	
8	EXGE to P.21 to DP.2124	
9	EXGE to P.21 to DP.2125	
10	EXGE to P.22 to DP.2204	
11	EXGE to P.22 to DP.2208	
12	EXGE to P.23 to DP.2313	
13	EXGE to P.23 to DP.2314	
14	EXGE to P.23 to DP.2317	
15	EXGE to P.24 to DP.2406	
16	EXGE to P.24 to DP.2407	
17	EXGE to P.24 to DP.2414	
18	EXGE to P.24 to DP.2415	
19	EXGE to P.24 to DP.2419	
20	EXGE to P.24 to DP.2420	
21	EXGE to P.24 to DP.2422	IV less than 430 V
22	EXGE to P.24 to DP.2424	
23	EXGE to P.24 to DP.2427	
24	EXGE to P.24 to DP.2428	

ANNEXURE-II

CEA Case No.: TN-733 **Name of the Power line**: 33 kV D/C OH line for Feeder No. 3 & 4 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-135	**Map Scale :** 1 cm= 500 m **Total Length :** 18.15 km **S.R. Value :** 15000 Ohm-cm

S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.
Southern Railway: W.384/3/6/24(TN) dated 12.07.2023					
1	Kovilpatti to Kadambur	Out of IV consideration zone			

I/32859/2024

Tele : **23019746**

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

TN-733

B/46937/Sigs 7(b)/3313/ 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: 03&04 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-02 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

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
PCD Division
Diary No. 662
Date 26/7/23

Sh. Akshay, DD
27/7

PPU. 31/7
31/07
Sh. Prateek