



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-719		
<b>Induced Voltage (IV) Calculation for PTCC proposal of 33 kV SC OH line for Feeder No. 1 on RSJ Pole with AL59 panther conductor AAAC Dog conductor from 220/33 kV JSW Tuticorin – B S/s at Arunkulam village to proposed 33 kV Wind Power unit substation tapping point TUT-1055 (Length: 26.2 Km)</b>		
S. No	Reference No.	Dated
(i)	JSWREL/33kV-PTCC/SC-01	04.03.2023
(ii)	BSNL: SR-PTCC/STN 5057/05	21.07.2023
(iii)	Southern Railway: W.384/3/6/26(TN)	13.07.2023
(iv)	Defense: B/46937/Sigs 7(b)/3279	11.08.2023

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 Arungulam village, Vilathikulam	92.84	42	0.0985	800	498	NA	NA
33 kV Wind Power unit substation	14	21.92	0.334	224	144	1	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.	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

I/32900/2024

ANNEXURE-I

CEA Case No.: TN-719		Map Scale : 1 cm= 500 m			
Name of the Power line: 33 kV SC OH line for Feeder No. 1 on RSJ Pole with AL59 panther conductor AAAC Dog conductor from 220/33 kV JSW Tuticorin – B S/s at Arunkulam village to proposed 33 kV Wind Power unit substation tapping point TUT-1055		Total Length : 26.2 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 5057/05 Dated: 21.07.2023					
<b>ETTAYAPURAM TELEPHONE EXCHANGE</b>					
1	EXGE to P.25 to DP.2521A				
2	EXGE to P.25 to DP.2523A				
3	EXGE to P.25 to DP.2525				
4	EXGE to P.25 to DP.2526A				
5	EXGE to P.25 to DP.2528				
6	EXGE to P.25 to DP.2530				
7	EXGE to P.25 to DP.2531A				
8	EXGE to P.25 to DP.2539				
9	EXGE to P.25 to DP.2540	1.4	0.0458	11375	521
10	EXGE to P.25 to DP.2541	0.8	0.02415	11801	285
11	EXGE to P.25 to DP.2542	1.4	0.0458	11375	521
12	EXGE to P.25 to DP.2543A	1.7	0.0412	11044	455
13	EXGE to P.25 to DP.2543B	1.7	0.0412	11044	455
<b>KOVILPATTI TELEPHONE EXCHANGE</b>					
1	EXGE to P.53 to DP.5315				
2	EXGE to P.53 to DP.5326				
3	EXGE to P.53 to DP.5330				

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4	EXGE to P.56 to DP.5601
5	EXGE to P.56 to DP.5603
6	EXGE to P.56 to DP.5606
7	EXGE to P.58 to DP.5830
8	EXGE to P.58 to DP.5836
9	EXGE to P.58 to DP.5838
10	EXGE to P.60 to DP.6015
11	EXGE to P.60 to DP.6035
12	EXGE to P.60 to DP.6058
13	EXGE to P.60 to DP.6741
14	EXGE to P.60 to DP.6742

Out of parallelism

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ANNEXURE-II

<b>CEA Case No.:</b> TN-719  <b>Name of the Power line:</b> 33 kV SC OH line for Feeder No. 1 on RSJ Pole with AL59 panther conductor AAAC Dog conductor from 220/33 kV JSW Tuticorin – B S/s at Arunkulam village to proposed 33 kV Wind Power unit substation tapping point TUT-1055			<b>Map Scale</b> : 1 cm= 500 m  <b>Total Length</b> : 26.2 km  <b>S.R. Value</b> : 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.
Southern Railway: W.384/3/6/26(TN) dated 13.07.2023					
1	Kovilpatti to Kadambur		Out of parallelism		

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

TN-719

B/46937/Sigs 7(b)/3279/

|| Aug 2023

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-1 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**

1. Refer your letter No JSWREL/33kV-PTCC/SC-01 dt 04 Mar 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)  
Lieutenant Colonel  
General Staff Officer Grade 1 (Communication)  
for Additional Director General (Telecommunication)

**Enclosures** : As above

**Copy to :-**

The Divisional Engineer (PTCC)  
'D' Wing, 3<sup>rd</sup> 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  
O/o PGM (North), QA & Inspection Circle,  
D-Tax Building, Eastern Court, Janpath  
New Delhi-110001

Central Electricity Authority  
PCD Division

Diary No. 29/18  
Date: 29/8/23

W(PCD)  
29/8

Sh. Akshay, PD  
29/8

PPU. 315/24  
01/09  
Sh. Parateek