

I/30825/2023



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

CEA Case No. : TN-735		
Induced Voltage (IV) Calculation for PTCC proposal for 230 kV SC line on DC tower from existing PGCIL 400/230 kV Tuticorin II GIS to proposed 230/33 kV JSW Tuticorin B Wind Power PSS-B of M/s JSW Renew Energy Ltd at Arungulam village, Vilathikulam (24.01 km) - regd.		
S. No	Reference No.	Dated
(i)	JSWFEL/PTCC-210 MW/TUT/007	13.06.2023
(ii)	CEA Letter: I/28634/2023	28.06.2023
(iii)	JSW E-mail	04.07.2023
(iv)	BSNL: SR-PTCC/STN 5045/05	25.08.2023
(v)	Southern Railway: W.384/3/6/32(TN)	13.07.2023
(vi)	Defense: B/46937/Sigs 7(b)/3426 (received on 19.09.2023)	01.09.2023

The PTCC proposal submitted vide reference (i) and (iii) has been examined. The LF induction on communication circuits of BSNL and Southern Railway with respect to details furnished vide above reference (iv) and (v) have been computed. The voltages 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 (vi) (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

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As per the details submitted by BSNL vide reference (iv) 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

emt
9.10.2023
(मं. ज. व.)

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 – 600 003	
3.	M/s JSW Renew Energy Ltd, JSW Centre,	Bandra Kurla Complex, Bandra (East), Mumbai - 400051	For information

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ANNEXURE-I

CEA Case No.: TN-735		Map Scale : 1 cm= 500 m			
Name of the Power line: 230 kV SC line on DC tower from existing PGCIL 400/230 kV Tuticorin II GIS to proposed 230/33 kV JSW Tuticorin B Wind Power PSS-B of M/s JSW Renew Energy Ltd at Arungulam village, Vilathikulam		Total Length : 24.01 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- SR-PTCC/STN 5045/05 Dated: 25.08.2023					
ETTAYAPURAM TELEPHONE EXCHANGE					
1	EXCHANGE to P.25 to DP.2521A				IV less than 430 V
2	EXCHANGE to P.25 to DP.2523A				
3	EXCHANGE to P.25 to DP.2525				
4	EXCHANGE to P.25 to DP.2526A				
5	EXCHANGE to P.25 to DP.2528				
6	EXCHANGE to P.25 to DP.2530				
7	EXCHANGE to P.25 to DP.2531A				
8	EXCHANGE to P.25 to DP.2539				
9	EXCHANGE to P.25 to DP.2540				
10	EXCHANGE to P.25 to DP.2541A				
11	EXCHANGE to P.25 to DP.2542				
12	EXCHANGE to P.25 to DP.2543A				
13	EXCHANGE to P.25 to DP.2543B				
PASUVANTHANAI TELEPHONE EXCHANGE					
1	EXCHANGE to DP.0061				Out of parallelism
2	EXCHANGE to DP.0036				

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ANNEXURE-II

CEA Case No.: TN-735 Name of the Power line: 230 kV SC line on DC tower from existing PGCIL 400/230 kV Tuticorin II GIS to proposed 230/33 kV JSW Tuticorin B Wind Power PSS-B of M/s JSW Renew Energy Ltd at Arungulam village, Vilathikulam			Map Scale : 1 cm= 500 m Total Length : 24.01 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.384/3/6/32(TN) Dated: 13.07.2023					
1	Kovilpatti to Kadambur		Out of parallelism		

I/30825/2023 Tele : 23019746

Directorate General of Signals
 Signals 7
 General Staff Branch TN-735
 Integrated HQ of MoD, (Army)
 DHQ PO, New Delhi – 110011

B/46937/Sigs 7(b)/3426/

01 Sep 2023

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

PTCC PROPOSAL FOR 230KV SC OH LINE ON DC TOWER WITH AL59 ZEBRA CONDUCTOR FROM THE EXISTING PGCIL 400/230KV SS AT TUTICORIN II GIS SS, TUTICORIN TO PROPOSED JSW TUTICORIN-B 230/33KV WIND POWER POOLING SUB-STATION OF M/S JSW RENEW ENERGY LTD AT ARUNGULAM VILLAGE, VILATHIKULAM TK, TUTICORIN DIST

1. Refer your letter No JSWFEL/PTCC-210MW/TUT/007 dt 13 Jun 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.



(SK Sharma)
 Lieutenant Colonel
 General Staff Officer Grade 1 (Communication)
 for Additional Director General (Telecommunication)

Enclosures : As above

Copy to :-

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

- for information

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. 84

Date 02/09/2023

Sh. Anubhaya (DT)

20/9