

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

Power System Communication Development Division

CEA Case No.: AND-760

Induced Voltage (IV) Calculation for PTCC proposal of 33 kV D/C line (Dog & Panther) on RSJ Poles and Multi-circuit towers from proposed 400/33 kV 314.1 MW Wind Pooling Substation of M/S AM Green Energy Private Ltd. at Krishnapuram Village, Kurnool to proposed Envision Feeder No. 4, 09 WTGs (comprising of 09 Nos. of 33/0.95 kV Unit Substation of AM Green Energy Pvt. Ltd. in Krishnagiri & Kodumur Mandal at Kurnool District) (Length: 27.5 kms + 2.6 kms on M/c towers)

S. No	Reference No.	Dated
(i)	AMGEPL/PTCC-Wind/2023-24/04	01.02.2024
(ii)	AMGEPL E-mail:	22.03.2024
(iii)	AMGEPL E-mail:	14.05.2024
(iv)	AMGEPL E-mail:	20.05.2024
(v)	BSNL: SR-PTCC/SAP5855/6	18.05.2024
(vi)	South Central Railway: SG.85/4/3/PTCC/SCR/2023-24/AP 36 RC	26.03.2024

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

GM (Tele), South Central Railway vide reference (vi) has issued their No Objection Certificate (NOC).

EPR Zones for proposed substations are mentioned below.

Name of the	Half	Fault	Resistance	d (mts)	d (mts)	d (mts)	d (mts) at
proposed SS	Diagonal	Current,	of earthmat,	at 430	at 650	at 7 kV	10 kV
	Distance,	I (kA)	R (Ohms)	V	V		
	D/2 (mts)						
400/33 kV	68.09	28	0.1225	475	291	NA	NA
314 MW Wind							
Power Pooling							
Substation at							
Krishnapuram							
Village,							
Kurnool							
33 kV Wind	15.4	15	0.57	291	187	3	NA
power unit S/s for							
Envision Feeder							
No. 4							

As per the details submitted by BSNL vide reference (v) above, no telephone exchange is falling in the EPR zone of the proposed substations.

Telecommunication details from DG Signals, MoD are awaited however, vide reference (iv) above, M/s AMGEPL have informed that all construction related work of the transmission line has completed and the line is awaiting charging due to want of PTCC approval. So as to charge the subject cited transmission line as per schedule, M/s AMGEPL has requested for issuance of provisional PTCC clearance and has submitted an undertaking that in case of any impact on telecom asset/ personnel of Defense due to charging of this transmission line, M/s AMGEPL shall take all remedial action.

Taking above into consideration, necessary action for issuance of provisional PTCC route approval may be taken under intimation to this office. LF induction on telecommunication circuits of Defense, will be communicated after the receipt of details from DG Signals, MoD.

Encl.: As above

Chief Engineer

To,

1.	Divisional Engineer	O/o CGM, QA & Inspection circle, 2 nd	
	(PTCC)	Floor, Sanchar complex, WMS compound,	
		Jayanagar, 5 th block, 9 th main, 47 th cross,	
		Bengaluru- 560 041	
2	M/s AM Green Energy	A-74, Nizamuddin East, Humayun Tomb,	Copy for information
۷.	Private Limited	New Delhi – 110 013	Copy for illiorination

ANNEXURE-I

CEA Case No.: AND-760

Name of the Power line: 33 kV D/C line (Dog & Panther) on RSJ Poles and Multi-circuit towers from proposed 400/33 kV 314.1 MW Wind Pooling Substation of M/S AM Green Energy Private Ltd. at Krishnapuram Village, Kurnool to proposed Envision Feeder No. 4, 09 WTGs (comprising of 09 Nos. of 33/0.95 kV Unit Substation of AM Green Energy Pvt. Ltd. in Krishnagiri & Kodumur Mandal at Kurnool District)

Map Scale : 1 cm = 500 m

Total Length: (Length: 27.5 kms + 2.6

kms on M/c tow ers)

S.R. Value : 20000 Ohm-cm

S.No.	Telecom. Details BSNL: SR-PTCC/SA	Length of Parallelis m in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.		
1	Kodumur TE to RTC Route	13633/0 Date. 16	IV less than 430 V				
2	Kodumur TE to Kondapeta Route		IV less than 430 V				
3	Kodumur TE to Varkur Route		IV less than 430 V				
4	Kodumur TE to Kota Route		IV less than 430 V				
5	Kodumur TE to Police station Route		IV less than 430 V				
6	Kodumur TE to Chowdeshwari Route		IV less than 430 V				