



सत्यमेव जयते

**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**  
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CEA Case No. : AND-737		
<b>Induced Voltage (IV) Calculation for PTCC proposal of 400 kV S/C line on D/C tower from 400/33 kV 314 MW Wind Pooling Substation at Krishnapuram Village, Kurnool to Central Pooling Switching Station, Kalava Village, Kurnool (Length: 50.54 km)</b>		
S. No	Reference No.	Dated
(i)	NIL	29.11.2023
(ii)	AMGEPL E-mail:	08.04.2024
(iii)	BSNL: SR-PTCC/SAP5688/6	21.03.2024
(iv)	South Central Railway: SG.85/4/3/PTCC/SCR/2023-24/AP 23 RTD	06.03.2024
(v)	Defense: B/46937/Sigs7(b)/3629	12.03.2024

The PTCC proposal submitted vide reference (i) and (ii) has been examined. The LF induction on communication circuits of BSNL and South Central Railway with respect to details furnished vide above references (iii) and (iv) respectively have been computed. The voltage likely to be induced on paralleling communication cables of BSNL and South Central 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 reference (v) has issued their No Objection Certificate (NOC) (Annexure-III).

EPR Zones for proposed substations are mentioned below.

Name of the proposed SS	Half Diagonal Distance, D/2 (mts)	Fault Current, I (kA)	Resistance of earthmat, R (Ohms)	d (mts) at 430 V	d (mts) at 650 V	d (mts) at 7 kV	d (mts) at 10 kV
400/33 kV 314 MW Wind Power Pooling Substation at Krishnapuram Village, Kurnool	78	28	0.1225	467	287	NA	NA
400 kV GIS Greenko AP01 IREP Pvt Ltd. Central Pooling S/s, Kalva village	153.6	33.39	0.66	7718	5054	330	185

I/34865/2024

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

Taking the above into consideration, necessary action for issuance of PTCC route approval may be taken under intimation to this office.

Encl.: As above

**Chief Engineer**

**To,**

1.	Divisional Engineer (PTCC)	O/o CGM, QA & Inspection circle, 2 <sup>nd</sup> Floor, Sanchar complex, WMS compound, Jayanagar, 5 <sup>th</sup> block, 9 <sup>th</sup> main, 47 <sup>th</sup> cross, Bengaluru- 560 041	
2.	Principal Chief Signal & Telecom Engineer	South Central Railway, 7 <sup>th</sup> floor, Rail Nilayam, Secunderabad – 500 025	
3.	M/s AM Green Energy Private Limited	A-74, Nizamuddin East, Humayun Tomb, New Delhi – 110 013	Copy for information

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ANNEXURE-I

<b>CEA Case No.: AND-737</b>			<b>Map Scale</b> : 1 cm= 500 m		
<b>Name of the Power line:</b> 400 kV S/C line on D/C tower from 400/33 kV 314 MW Wind Pooling Substation at Krishnapuram Village, Kurnool to Central Pooling Switching Station, Kalava Village, Kurnool			<b>Total Length</b> : 50.54 km		
			<b>S.R. Value</b> : 30000 Ohm-cm		
<b>S.No.</b>	<b>Telecom. Details</b>	<b>Length of Parallelism in Km.</b>	<b>Mutual Coupling in Ohms.</b>	<b>Effective Fault current in Amps.</b>	<b>I.V in Volts.</b>
BSNL: SR-PTCC/SAP5688/6 Dated: 21.03.2024					
<b>I</b>	<b>Kodumur Telephone Exchange</b>				
1	Exchange to RTC route (B-B1)	Out of parallelism			
2	Exchange to Kondapeta route (B-B2)				
3	Exchange to Varkur route (B-B3)				
4	Exchange to Kota route (B-B4)				
5	Exchange to Police station route (B-B5)				
6	Exchange to Chowdeshwari route (B-B6)				

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ANNEXURE-II

<b>CEA Case No.: AND-737</b> <b>Name of the Power line:</b> 400 kV S/C line on D/C tower from 400/33 kV 314 MW Wind Pooling Substation at Krishnapuram Village, Kurnool to Central Pooling Switching Station, Kalava Village, Kurnool			<b>Map Scale</b> : 1 cm= 500 m <b>Total Length</b> : 50.54 km <b>S.R. Value</b> : 30000 Ohm-cm		
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.
<b>South Central Railway: SG.85/4/3/PTCC/SCR/2023-24/AP 23 RTD Date: 06.03.2024</b>					
1	Dupadu (DVD) to Ullindakonda (UKD)	4.7	0.0008	11250	9
2	Ullindakonda (UKD) to Veldurti (VDI)	3.9	0.00715	13147	94
3	Veldurti (VDI) to Bogolu (BVO)	Outside IV consideration zone			

I/34865/2024

E-mail: webstar@nic.in

AND - 737

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

B/46937/Sigs 7(b)/3629

12 Mar 2024

AM Green Energy Pvt Ltd  
A-74, Nizamuddin East, Humayu Tomb,  
New Delhi-110013, India

**PTCC PROPOSAL FOR CONSTRUCTION OF 400KV (TWIN ACSR MOOSE)  
SINGLE CIRCUIT STRUNG ON DOUBLE CIRCUIT TOWER TRANSMISSION  
LINE FROM 33/400KV 314 MW WIND POOLING SUB-STATION AT  
KRISHNAPURAM (VILLAGE), KODUMURU (MANDAL), KURNOOL (DISTRICT),  
ANDHRA PRADESH TO CENTRAL POOLING SWITCHING STATION (CPSS) AT  
KALAVA (VILLAGE), ORVAKAL (MANDAL), KURNOOL (DISTRICT),  
ANDHRA PRADESH**

- 1 Ref your letter No Nil dt 29 Nov 2023.
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.



(Puneet Lakhanpal)  
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. 7-22

Date 27-3-24

Sh. Anshu (DD)  
26/3