

I/25505/2023



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**

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<b>CEA Case No. : AND-717</b>		
<b>PTCC approval for LILO of 220 kV VTS – Tallapalli circuits 3 &amp; 4 to the proposed 220 kV features at 132/33 kV SS Piduguralla (1.150 km)</b>		
<b>S. No</b>	<b>Reference No.</b>	<b>Dated</b>
(i)	APTRANSCO: CE/ZONE/VJA/SE(Z)/EE(Const)/DEE-4/AEE/F.17/D.No.230/22	21.07.2022
(ii)	APTRANSCO: Email	22.12.2022
(iii)	BSNL: SR-PTCC/SAP4210/4	03.11.2022
(iv)	South Central Railway: SG.85/4/3/PTCC/SCR/2022-23/AP-9 RTD	02.12.2022
(v)	Defense: B/46937/Sigs 7(b)/2974	10.10.2022

The PTCC proposal submitted vide reference (i) & (ii) has been examined. The LF induction on communication circuits of BSNL and South Central Railway with respect to details furnished vide above reference (iii) & (iv) respectively have been computed. The voltages likely to be induced on paralleling communication cables of BSNL and South Central Railway under Single Line to Ground fault conditions are enclosed at Annexure-I & II respectively. The screening factors as applicable have been considered. Vide reference (v) above, DG Signals, MoD has issued No Objection Certificate (NOC) (enclosed as 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
Piduguralla 220 kV SS	55	16.245	0.3	568.36	357.37	NIL	NIL

Taking 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), Southern Zone	BSNL, Inspection Circle, 1st Floor, Raj Bhavan Exchange No. 26, Sardar Patel Road, Guindy, Chennai-600032	
2.	General Manager/Tele	South Central Railway, O/o PCSTE, 7 <sup>th</sup> floor, Rail Nilayam, Secunderabad - 500025	Annex-II
3.	Chief Engineer	APTRANSCO, Vijayawada Zone, Gunadala, Vijayawada - 520004	Copy for information

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ANNEXURE-I

CEA Case No.: AND-717		Map Scale : 1 cm= 500 m			
Name of the Power line: LILO of 220 kV VTS – Tallapalli circuits 3 & 4 to the proposed 220 kV features at 132/33 kV SS Piduguralla		Total Length : 1.15 km			
		S.R. Value : 60000 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>BSNL Letter No: SR-PTCC/SAP4210/4 Date: 03.11.2022</b>					
<b>PIDUGURALLA EXCHANGE</b>					
1	PDG Exchange - 22 PILLAR	OUT OF PARALLELISM			
2	PDG Exchange - 27 PILLAR				
3	PDG Exchange - 32 PILLAR				
4	PDG Exchange - 33 PILLAR				
5	PDG Exchange - 35 PILLAR				
6	PDG Exchange - 37 PILLAR				
7	PDG Exchange - 39 PILLAR				
8	PDG Exchange - 40 PILLAR				
9	PDG Exchange - 41 PILLAR				
10	PDG Exchange - 45 PILLAR				

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ANNEXURE-II

CEA Case No.: AND-717		Map Scale : 1 cm= 500 m			
Name of the Power line: LILO of 220 kV VTS – Tallapalli circuits 3 & 4 to the proposed 220 kV features at 132/33 kV SS Piduguralla		Total Length : 1.15 km			
		S.R. Value : 60000 Ohm-cm			
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.

SOUTH CENTRAL RAILWAY Letter No: SG.85/4/3/PTCC/SCR/2022-23/AP-9 RTD Date: 02.12.2022

Affected block & telecom circuits					
1	Tummalacheruvu (TMLU) – Piduguralla (PGRL)	Out of parallelism			0
2	Piduguralla (PGRL) - Piduguralla New (PGRN)	0.4	0.0035	15714	55
3	Piduguralla New (PGRN)–Bellamkonda (BMKD)	0.7	0.0027	15926	43
4	Piduguralla New (PGRN) – Nimalipuri (NLPI)	0.7	0.0037	15946	58

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Annexure-III

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

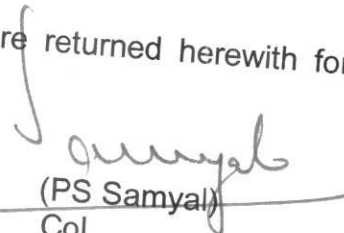
10 Oct 2022

B/46937/Sigs 7(b)/2974/

Chief Engineer, Zone  
Transmission Corporation of Andhra Pradesh Limited  
Gunadala, Vijayawada- 520004

**APTRANSCO-VJA-ZONE-PROCUREMENT, SUPPLY, ERECTION, INSTALLATION  
AND COMMISSIONING OF 220KV FEATURES AT 132/33KV SS PIDUGURALLA  
AND ERECTION OF 220KV LILO OF VTS-TALLAPALLI CIRCUITS 3 & 4 TO THE  
PROPOSED 220KV FEATURES AT PIDUGURALLA 132/33KV SS AND  
CONNECTED BAYS IN GUNTUR DISTRICT- PTCC PROPOSAL**

1. Refer your Lr. No. CE/ZONE/VJA/SE(Z)/EE(Const)/DEE-4/AEE/F.17/D.No. 230/22 dt 21 Jul 2022 (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.

  
(PS Samya)  
Col  
GSO 1 (Comn)  
for ADG T

**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

परीत

20/10/22

