



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**

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CEA Case No. : AND-715		
Induced Voltage (IV) calculation in respect of PTCC proposal for LILO of one circuit of 220kV VTS(Nuziveedu) -K. Kota D/C line at 400/220kV Kamvarapukota SS (1.358 km)-regd.		
S. No	Reference No.	Dated
(i)	TCAPL: CE/Zone/VSP/SE(Tr)/EE(C)/C5/AEE.T3/F.No.24/D.No.2484	18.05.2022
(ii)	TCAPL: CE/Project/SE(220&132kV)/EE-3/DEE-3/VTS-K.Kota LILO/D.No.181	12.06.2023
(iii)	TCAPL: CE/Project/SE(220&132kV)/EE-3/DEE-3/F.VTS-K.Kota LILO/D.No.23	31.01.2024
(iv)	BSNL: SR-PTCC/SAP4510/04	11.03.2023
(v)	South Central Railway: SG.85/4/3/PTCC/SCR/2022-23/AP-2 RC	29.06.2022
(vi)	Defense: B/46937/Sigs 7(b)/3515	06.11.2023

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

DG Signals, MoD has issued No Objection Certificate (NOC) vide reference (vi) (attached as Annexure -II).

All substations are existing therefore, EPR calculations are not warranted.

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, 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, Bangalore-560041	
2.	Chief Engineer (Projects)	APTransco, Vidyut Soudha, Gunadala, Vijayawada-520004, Andhra Pradesh	Copy For Information

**ANNEXURE-I**

<b>CEA Case No.:</b> AND-715 Name of the Power line: LILO of one circuit of 220kV VTS(Nuziveedu) - K. Kota D/C line at 400/220kV Kamvarapukota SS			<b>Map Scale</b> : 1 cm= 500 m <b>Total Length</b> : 1.358 km <b>S.R. Value</b> : 50000 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>

<b>BSNL Letter No:</b> SR-PTCC/SAP4510/04 <b>Dated</b> 11.03.2023					
1.	KMV Exg-21	IV less than 430V			
2.	KMV Exg-22				
3.	KMV Exg-23	0.6	0.0015	27549	41
4.	KMV Exg-31-DP10	IV less than 430V			
5.	KMV Exg-32-DP11				

Tele : 23019746

Annexure II

Directorate General of Signals

Signals 7

General Staff Branch

Integrated HQ of MoD, (Army)

PO BOX, NEW DELHI - 110011

AP-715

B/46937/Sigs 7(b)/3515

06 Nov 2023

Chief Engineer, Projects

APTransco

Transmission Corporation of Andhra Pradesh Limited

Vidyut Soudha, Vijayawada- 520004, Andhra Pradesh

**APTRANSCO PROJECTS-SPECIFICATION NO APT-E-16/2016-ERECTION OF  
220KV DC LINE BY MAKING LILO OF EXISTING ONE CIRCUIT OF 220KV VTS  
(NUZIVEEDU)-KAMAVARAPUKOTA LINE AT 400/220KV KAMAVARAPUKOTA  
SS IN W.G.DT-PTCC PROPOSAL**

1. Refe your letter No CE/Project/SE(220&132kV)/EE-3/DEE-3/VTS-K.Kota LILO/D.No 250/23 dt 29 Aug 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 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

File No. 23/11

Date: 23/11/23

Sh. Akshay, DD

New  
23/11

Pls. examine &amp; pr

8/11/23

05/12

Sh. Prateek