



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

CEA Case No. : AND-716		
Induced Voltage (IV) calculation for PTCC proposal of LILO of 220 kV S/C KTPS – Nunna Transmission Line at proposed 220/132 kV Tiruvuru (A.Konduru) S/s in Krishna District [Length – 3.150 km]-Regd.		
S. No	Reference No.	Dated
(i)	APTRANSCO: CE/Projects/SE(220 kV & 132 kV)F.No.220kVTiruvuru/D.No86/23	24.04.2023
(ii)	APTRANSCO: e-Mail	15.05.2025
(iii)	BSNL: SR-PTCC/SAP6641/8	24.02.2025
(iv)	South Central Railways: SG.85/4/3/PTCC/SCRAP202122RC	21.03.2022
(v)	Defense: B/46937/Sigs7(b)/3339	07.07.2023

The PTCC proposal submitted vide reference (i) & (ii) has been examined. The LF induction on Block and Telecom circuits of BSNL with respect to details furnished vide above reference (iii) 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. SSTE, South Central Railways and DG Signals, MoD has issued No Objection Certificate (NOC) vide reference (iv) & (v) respectively.

EPR zone for 220 kV proposed S/S 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
220/132 kV Tiruvuru S/s	107	42.86	0.30	3064	1191	89	30

As per the Telecom Details submitted by BSNL vide above reference (iii), no telephone exchange of BSNL is falling within the EPR zone of proposed Substation.

Taking above into consideration, necessary action for issuance of PTCC route approval (RAC) shall be taken under intimation to this office in the stipulated period as specified in PTCC Manual and subsequent CLPTCC meetings.

As per the decision taken in 111th and 112th CLPTCC meeting, necessary instructions for “Deemed Energization approval” shall be specified while issuing RAC.

Chief Engineer

To,

1.	Divisional Engineer (PTCC), Southern Zone	QA & Insp Circle, BSNL Office Jayanagar, Bangalore	
3.	Chief Engineer APTRANSCO	CE Projects Vidyut Sabha, Vijaywada	Copy for information

ANNEXURE-I

CEA Case No.: AND-716			Map Scale : 1 cm= 500 m		
Name of the Power line: LILO of 220 kV S/C KTPS – Nunna Transmission Line at proposed 220/132 kV Tiruvuru (A.Konduru) S/s.			Total Length : 3.150 km		
			S.R. Value : 50000 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-PTCC/SAP6641/8

Dated 24.02.2025

Affected Blocks & Telecom Circuits Details

1.	Khambhampadu Exchange to DP1	Out of Parallelism
2.	Khambhampadu Exchange to DP2	Out of Parallelism
3.	Khambhampadu Exchange to DP3	Out of Parallelism
4.	Khambhampadu Exchange to DP4	Out of Parallelism
5.	Khambhampadu Exchange to DP5	Out of Parallelism
6.	A Konduru Exchange to DP1	Out of Parallelism
7.	A Konduru Exchange to DP2	Out of Parallelism
8.	A Konduru Exchange to DP3	Out of Parallelism
9.	A Konduru Exchange to DP4	Out of Parallelism
10.	A Konduru Exchange to DP5	Out of Parallelism