



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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<b>CEA Case No.: KNK-991</b>		
<b>Induced Voltage (IV) calculation in respect of PTCC proposal for LILO of 2<sup>nd</sup> Circuit of 220kV Bidnal-Mahalingapura DC line at 220/110/11kV Soundatti SS, Belagavi(10.552 km)-regd.</b>		
<b>S. No</b>	<b>Reference No.</b>	<b>Dated</b>
(i)	KPTCL: CEE/SLDC/PTCC/F-3341/11873-81	10.02.2022
(ii)	KPTCL: CEE/SLDC/PTCC/F-3341/623-26	15.05.2024
(iii)	BSNL:SR-PTCC/SKT 3833/2	19.03.2024
(iv)	South Western Railway: SG/SWR/PTCC/F-3341/2325	30.03.2022
(v)	Defense: B/46937/Sigs7(b)/2770	06.04.2022

The PTCC proposal submitted vide reference (i) and (ii) has been examined. The LF induction on communication circuits of BSNL with respect to details furnished vide above reference (iii) 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. South Western Railway has issued NOC vide above reference (iv).

Vide reference (v) above, DG Signals, MoD has issued No Objection Certificate (NOC) (enclosed as Annexure-II).

All Substations are existing therefore, EPR calculation is not warranted. As per the details submitted by BSNL vide reference (iii) above, no telephone exchanges are falling in the EPR zone of the proposed substation.

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 Telecom (PTCC), Southern Zone	BSNL, Inspection Circle, 2nd Floor, Sanchar Complex, WMS Compound, Jayanagar 5th Block, 9th Main, 47th Cross ,Bangalore-560041	
2.	Member(Power), KPTCL	Chief Engineer Electricity, SLDC #28, Race Course Road, Bengaluru-560009	Copy for information

**ANNEXURE-I**

<b>CEA Case No.:</b> KNK-991		<b>Map Scale</b> : 1 cm= 500 m			
Name of the Power line: LILO of 2nd Circuit of 220kV Bidnal-Mahalingapura DC line at 220/110/11kV Soundatti SS, Belagavi		<b>Total Length</b> : 10.552 km			
		<b>S.R. Value</b> : 20000 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 Letter No:** SR-PTCC/SKT 3833/2      **Dated** 19.03.2024

P-T1	Soundatti EXGE to BDO Circle	IV less than 430V			
P-T2	Soundatti Exge to BDO Circle	0.2	0.007	27939	196
P-T3	Soundatti Exge to HESCOM Office	0.75	0.0065	27155	176
P-T4	Soundatti Exge to Muncipalaty	IV less than 430V			
P-T5	Soundatti Exge to Jogalbhavi	IV less than 430V			
P-T6	Soundatti Exge to Ramapur Site	0.6	0.014	27755	389
P-T7	Soundatti Exge to SLAO Cross	0.6	0.018	27755	499
P-T8	Soundatti Exge to Padakipuram	Out of Parallelism			
P-T9	Soundatti Exge to Betsur	1.1	0.0066	27048	179