



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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<b>CEA Case No. : KNK-1161</b>		
<b>Induced Voltage (IV) calculation in respect of PTCC proposal for 220kV S/C line from 220/66 kV RS at Kudligi to 220/33 kV RS at MSPL Ltd Near Yashwanthnagar (27.753 km)-regd.</b>		
<b>S. No</b>	<b>Reference No.</b>	<b>Dated</b>
(i)	KPTCL: CEE/SLDC/PTCC/F-3787/5532-40	22.11.2024
(ii)	KPTCL: CEE/SLDC/PTCC/EMD/F-3787/6374-76	02.01.2025
(iii)	KPTCL: Email	15.09.2025
(iv)	BSNL: SR-PTCC/F-3787/5	06.09.2025
(v)	South Western Railway: SG/SWR/PTCC/F-3787/2844	05.02.2025
(vi)	Defense: B/46937/Sigs 7(b)/4284	08.01.2025

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

ADG (Telecommunications) has issued No Objection Certificate (NOC) vide reference (vi) above (attached as Annexure –II).

EPR Zones for proposed substation 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
220/33kV RS MSPL Ltd Near Yashwanthnagar	63.1	16	0.16	313	185	NA	NA

As per the details submitted by BSNL vide reference (iv) 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 (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.

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.	PCSTE/SWR	Principal Chief Signal & Telecom Engineer, Rail Soudha, Gadag Road, Hubballi-580020	
3.	Member(Power), KPTCL	Chief Engineer Electricity, SLDC #28, Race Course Road, Bengaluru-560009	Copy for information

**ANNEXURE-I**

<b>CEA Case No.:</b> KNK-1161 Name of the Power line: 220kV S/C line from 220/66 kV RS at Kudligi to 220/33 kV RS at MSPL Ltd Near Yashwanthnagar			<b>Map Scale</b> : 1 cm= 500 m <b>Total Length</b> : 27.753 km <b>S.R. Value</b> : 25000 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>SWR Letter No:</b> SG/SWR/PTCC/F-3787/2844      Dated 05.02.2025					
1.	RMGD-YTG	0.5	0.00069	15712	11
2.	YTG - SMLI	4.25	0.021	13550	285

## Annexure II

Directorate General of Signals  
(Signals 7)  
General Staff Branch  
Integrated HQ of MoD (Army)  
Room No  
DHQ PO, New Delhi - 110011

B/46937/Sigs-7(b)/4284


08 Jan 2025

M/s Karnataka Power Transmission Corporation Ltd  
Chief Engineer Electricity  
State Load Despatch Centre  
# 28, Race Course Cross Road  
Bengaluru-560009

**PTCC PROPOSAL FOR CONSTRUCTION OF PROPOSED 220KV SC  
LINE ON DC TOWERS FROM EXISTING 220/66KV RS AT KUDLIGI  
(BADELADAKU) TO PROPOSED 220/33KV RS AT MSPL LIMITED  
NEAR SOMALAPURA (YASHWANTH NAGAR) IN SANDUR/KUDLIGI  
TALUK, BALLARI DISTRICT**

1. Ref your letter No CEE/SLDC/PTCC/F-3787/5532-40 dt 22 Nov 24.
2. No Objection Certificate (NOC) is accorded based on inputs provided as per Map sheet received vide your letter mentioned above.
3. Documents alongwith map sheets (in original) are returned herewith for your further necessary action.



  
(Karan Dhawan)  
Colonel  
Colonel Signals-7  
for Additional Director General  
(Telecommunication)

**Enclosures:** As above

**Internal:-**

HQ Southern Comd (Sigs) - for info pl.