



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-986</b>		
<b>Induced Voltage (IV) calculation in respect of PTCC proposal for LILO of 220 kV Lingasugur – Basavana Bagewadi DC line at 400/220 kV Hadagali SS in Vijayapura (35.936 km)- regd.</b>		
<b>S. No</b>	<b>Reference No.</b>	<b>Dated</b>
(i)	KPTCL: CEE/SLDC/PTCC/F-3307/9903-11	27.12.2021
(ii)	KPTCL: CEE/SLDC/PTCC/CEA/F-3307/6882-84	17.01.2025
(iii)	KPTCL: Email_EMD Parameters	01.12.2025
(iv)	BSNL: SR-PTCC/SKT-3793/4	05.04.2022
(v)	South Western Railway: SG/SWR/PTCC/F-3307/2292	20.01.2022
(vi)	Defense: B/46937/Sigs 7(b)/2728	17.02.2022

The PTCC proposal submitted vide above references (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. SWR has issued NOC vide reference (v) above.

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

EPR Zones for proposed substations are mentioned below.

Name of the proposed SS	Half Diagonal Distance, D/2 (mts)	Fault Current, I (k A)	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
400/220 kV Hadagali SS	202.96	47.25	0.2	4257	2748	71	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.	Member(Power) SLPTCC	Chief Engineer Electricity, SLDC #28, Race Course Cross Road, Bengaluru - 560009	Copy for Information

**ANNEXURE-I**

<b>CEA Case No.:</b> KNK-986 Name of the Power line: LILO of 220 kV Lingasugur – Basavana Bagewadi DC line at 400/220 kV Hadagali SS in Vijayapura		<b>Map Scale</b> : 1 cm= 500 m <b>Total Length</b> : 35.936 km <b>S.R. Value</b> : 20000 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 Letter No:** SR-PTCC/SKT-3793/4      **Dated** 05.04.2022

**B. Bagewadi Exchange Cables**

1.	Exge to Huvina Hippargi Road (A-A1)	IV less than 430V			
2.	Exge to Bijapur Road (A-A2)	1.97	0.0014	18109	25
3.	Exge to Muttagi Road (A-A3)	IV less than 430V			

**Shivanagi Telephone Exge Cables**

1.	Exge to Bijapur Road (B-B1)	IV less than 430V			
2.	Exge to Main Road Pillar (B-B2)				

**Huvina Hippargi Telephone Exge Cables**

1.	Exge to Bagewadi ROAD (C-C1)	IV less than 430V			
2.	Exge to within Village (C-C2)				

KNK-986

Tele : 23019746

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


B/46937/Sigs 7(b)/2728

17 Feb 2022

Office of the Chief Engineer Electricity,  
 Karnataka Power Transmission Corporation Limited  
 State Load Despatch Centre,  
 # 28, R.C. Cross Road,  
 Bengaluru - 560 009

**PTCC PROPOSAL FOR CONSTRUCTION OF 220/220KV MC LINE TO LILOING  
 OF EXISTING 220KV LINGASUGUR-BASAVANA BAGEWADI DC LINE TO THE  
 PROPOSED 400/220KV HADAGALI SS IN VIJAYAPURA DISTRICT**

1. Refer your letter No CEE/SLDC/PTCC/F-3307/9903-11 dt 27 Dec 2021 (copy att).
2. No Objection Certificate (NOC) is accorded based on inputs provided as per Map sheets received vide your above mentioned letter.
3. Documents alongwith map sheets (in original) are returned herewith for your further necessary action.

  
 (Suresh Pal Choyal)  
 Lt Col  
 GSO 1 (Coord)  
 for SO-in-C

**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

The DET(PTCC), Northern Zone  
 O/o PGM (North), QA & Inspection Circle,  
 D-Tax Building, Eastern Court, Janpath  
 New Delhi-110001

- for information

