



सत्यमेव जयते



**भारत सरकार**  
**Government of India**  
**विद्युत मंत्रालय**  
**Ministry of Power**  
**केन्द्रीय विद्युत प्राधिकरण**  
**Central Electricity Authority**  
**विद्युत संचार विकास प्रभाग**  
**Power Communication Development Division**

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CEA Case No. : KNK-959		
Induced Voltage (IV) calculation in respect of PTCC proposal for LILO of 220KV Hiriyr (PGCIL) – Gowribidanur DC line to proposed 220/110/66KV RS at P.D. Kote (Hosakere) in Chitradurga district (34.338 km) - regd.		
S. No	Reference No.	Dated
(i)	KPTCL: CEE/SLDC/PTCC/F-3140/11841-49	28.01.2021
(ii)	KPTCL: CEE/SLDC/PTCC/F-3140/11850-54	28.01.2021
(iii)	KPTCL: CEE/SLDC/PTCC/CEA/F-3140/6786-88	18.11.2023
(iv)	KPTCL : Email	11.08.2025
(v)	BSNL: SR-PTCC/SKT-2922/04	22.10.2021
(vi)	South Western Railway : SG/SWR/PTCC/F-3140/2130	12.03.2021
(vii)	Defense: B/46937/Sigs 7(b)/2326	06.04.2021

The PTCC proposal submitted vide above references (i) to (iv) have been examined. The LF induction on Block and Telecom circuits of BSNL 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 BSNL under Single Line to Ground fault condition are enclosed at Annexure-I. Screening factors as applicable has been considered. South Western Railway has issued NOC vide reference (vi) above.

ADG (Telecommunications) has issued No Objection Certificate (NOC) vide reference (vii). (enclosed as Annexure II)

EPR details for the proposed substation is given below.

Name of the 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
220/110/66KV RS at P.D. Kote (Hosakere)	140.7	30	0.55	5256	3430	191	91

As per the details submitted by BSNL vide reference (v) above, no telephone exchange is 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.

**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-959		<b>Map Scale</b> : 1 cm= 500 m			
Name of the Power line: LILO of 220KV Hiriyur (PGCIL) – Gowribidanur DC line to proposed 220/110/66KV RS at P.D. Kote (Hosakere)		<b>Total Length</b> : 34.338 km			
		<b>S.R. Value</b> : 30000 Ohm-cm			
<b>BSNL Letter No.</b> SR-PTCC/SKT-2922/04 <b>Date:</b> 22.10.2021					
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.
<b>Dharmapura Exge</b>					
<b>1.</b>	Dharmapura Exge to Hariyabbe (A-A1)	4.73	0.08	24213	1937

**Annexure II**

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)/2326

06 Apr 2021

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

**PROPOSAL FOR CONSTRUCTION OF PROPOSED 220KV DC LILO LINE ON  
 MC TOWERS FROM EXISTING 400/220KV HIRIYUR (PGCIL)-GOWRIBIDANUR  
 DC LINE TO THE PROPOSED 220/66/11KV RS AT P.D KOTE (HOSAKERE) IN  
 HIRIYUR TALUK CHITRADURGA DISTRICT**

1. Refer your letter No CEE/SLDC/PTCC/F-3140/11841-49 dt 28 Jan 2021 (copy att).
2. No Objection Certificate (NOC) is accorded based on inputs provided vide Map sheets received under your letter mentioned above.
3. Documents alongwith map sheets (in original) are returned herewith for your further necessary action.



(A Rawat)  
 Lt Col  
 GSO 1 (Comn)  
 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