



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

CEA Case No.: KNK-987		
Induced Voltage (IV) calculation in respect of PTCC proposal for 220 kV UG cable by making LILO of both circuits of 220 kV Somanahalli – Malur DC line at 400/220 kV Dommasandra GIS (5.253 km)- regd.		
S. No	Reference No.	Dated
(i)	KPTCL: CEE/SLDC/PTCC/F-3321/10276-85	07.01.2022
(ii)	KPTCL: Email EMD parameters	05.02.2026
(iii)	BSNL: SR-PTCC/F-3321/5	30.01.2026
(iv)	South Western Railway: SG/SWR/PTCC/F-3321/2302	07.07.2022
(v)	Defense: B/46937/Sigs 7(b)/2735	06.04.2022

The PTCC proposal submitted vide above references (i) and (ii) has been examined. The LF induction on Block and Telecom circuits of South Western Railway 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 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), BSNL, Bangalore has issued NOC vide reference (iii) above.

DG Signals, MoD has issued No Objection Certificate (NOC) vide reference (v) (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 (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
400/220 kV Dommasandra SS	97.16	47.25	0.19	1931	1245	27	NA

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 (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, 2nd Floor, Sanchar Complex, WMS Compound, Jayanagar 5th Block, 9th Main, 47th Cross, Bangalore-560041	
2.	PCSTE/SWR	Principal Chief Signal & Telecom Engineer, Rail Soudha, Gadag Road, Hubballi-580020	
3.	Member (Power) SLPTCC	Chief Engineer Electricity, SLDC #28, Race Course Cross Road, Bengaluru - 560009	Copy for Information

ANNEXURE-I

CEA Case No.: KNK-987 Name of the Power line: 220 kV UG cable by making LILO of both circuits of 220 kV Somanahalli – Malur DC line at 400/220 kV Dommasandra GIS		Map Scale : 1 cm= 500 m Total Length: 5.253 km S.R. Value : 30000 Ohm-cm			
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.

SWR Letter No: SG/SWR/PTCC/F-3321/2302 Dated 07.07.2022					
1.	Baiyyappanahalli - Karmelaram	Out of Parallelism			
2.	Karmelaram - Heelalige	3.9	0.00017	24449	4
3.	Heelalige – Anekal Road	Outside IV consideration zone			

Tele : 23019746

KNK-487

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


B/46937/Sigs 7(b)/2735

06 Apr 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 220KV, 1200SQMM UG CABLE
ROUTE DOUBLE LILO FROM EXISTING 220KV SOMANAHALLI-MALUR DC
LINE TO THE PROPOSED 400/220KV DOMMASANDRA GIS SUB-STATION,
DOMMASANDRA VILLAGE, SARJAPURA HOBLI, ANEKAL TALUK,
BENGALURU URBAN DISTRICT**

1. Refer your letter No CEE/SLDC/PTCC/F-3321/10276-85 dt 07 Jan 2022 (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

- for information

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

Di
192
1/6

