



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

CEA Case No. : KNK-1045		
Induced Voltage (IV) Calculation for PTCC proposal of 220 kV S/C line on D/C and M/C towers (partially new and partially existing corridor) from existing 220/110/11 kV Koppala SS (KPTCL) to existing 220/11 kV M/s Xindia Steels Limited Kunikeri by disconnecting existing line towards Lingapur at TN-379 in Koppala district (Length: 2.555 kms).		
S. No	Reference No.	Dated
(i)	CEE/SLDC/PTCC/F-3621/2636-44	16.06.2023
(ii)	CEE/SLDC/PTCC/F-3621/5477-79	07.12.2024
(iii)	BSNL: SR-PTCC/SKT5125/6	01.09.2023
(iv)	South Western Railway: SG/SWR/PTCC/F-3621/2581	03.08.2023
(v)	Defense: B/46937/Sigs 7(b)/3408	01.09.2023

The PTCC proposal submitted vide reference (i) and (ii) has been examined. The LF induction on communication circuits of BSNL and South Western Railway with respect to details furnished vide above references (iii) and (iv) respectively have been computed. The voltages likely to be induced on paralleling communication cables of BSNL and South Western Railway under Single Line to Ground fault condition are enclosed at Annexure-I and Annexure-II respectively. The screening factors as applicable have been considered.

DG Signals, MoD vide reference (vi) have given their NOC for charging the line.

As both substations are existing, EPR zone verification is not mandated.

Taking above into consideration, necessary action for issuance of PTCC route approval (RAC) shall be taken under intimation to this office.

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	O/o CGM, QA&I circle, 2 nd floor, Sanchar Complex, WMS Compound, Jayanagar, 5 th block, 9 th main, 47 th cross, Bengaluru- 560 041	
2.	GM (S&T), South Western Railway	South Western Railway Headquarter, Rail Soudha, Hubballi – 580 023	
3.	Chief Engineer, SLDC, KPTCL	State Load Despatch Centre, #28, Race Course Road, Bengaluru	Copy for information

ANNEXURE-I

CEA Case No.: KNK-1045					
Name of the Power line: 220 kV S/C line on D/C and M/C towers (partially new and partially existing corridor) from existing 220/110/11 kV Koppala SS (KPTCL) to existing 220/11 kV M/s Xindia Steels Limited Kunikeri by disconnecting existing line towards Lingapur at TN-379 in Koppala district			Map Scale : 1 cm= 500 m Total Length : 2.555 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.
BSNL: SR-PTCC/SKT5125/6 Date: 01.09.2023					
I	Koppal coaxial Exchange				
1	Exchange to Gadag Road (C-C1)	Out of parallelism			
2	Exchange to Kinnal Road (C-C5)				
3	Exchange to Police qtrs (C-C2)				
4	Exchange to DD Office (C-C3)				
5	Exchange to FFOD Point (C-C4)				
II	Koppal MBM Exchange				
1	Exchange to Court Road (M-M1)	Out of parallelism			
2	Exchange to HSG Road (M-M2)				
3	Exchange to Koppal City (M-M3)				
4	Exchange to Koppal Market (M-M4)				
5	Exchange to Bus Station Road (M-M5)				
6	Exchange to Police station (M-M6)				
III	Ginigera Exchange				
1	Exchange to HSL side (G-G1)	Out of parallelism			
2	Exchange to Circle side (G-G2)				
3	Exchange to BANL side (G-G3)				
4	Exchange to Factory side (G-G4)				
IV	Hirebagnal Exchange				
1	Exchange to Factory side (A-A1)	IV less than 430 V			
2	Exchange to Petrol bunk (A-A2)	IV less than 430 V			
3	Exchange to Village (A-A3)	IV less than 430 V			
V	Kunikeri Exchange				
1	Exchange to Steel plant (K-K1)				

2	Exchange to Tanda (K-K2)	Out of parallelism
VI	Muddabali Exchange	
1	Exchange to Gondabal Side (B-B1)	Out of parallelism
2	Exchange to Village Side (B-B2)	
VII	DC Office Exchange	
1	Exchange to DC office side (D-D1)	Out of parallelism
2	Exchange to DC office (D-D2)	
3	Exchange to DC office (D-D3)	

ANNEXURE-II

CEA Case No.: KNK-1045 Name of the Power line: 220 kV S/C line on D/C and M/C towers (partially new and partially existing corridor) from existing 220/110/11 kV Koppala SS (KPTCL) to existing 220/11 kV M/s Xindia Steels Limited Kunikeri by disconnecting existing line towards Lingapur at TN-379 in Koppala district			Map Scale : 1 cm= 500 m Total Length : 2.555 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.
South Western Railway: SG/SWR/PTCC/F-3621/2581 Date: 03.08.2023					
1	KBL to GIN	1.8	0.00107	10909	12
2	GIN to MRB	Out of parallelism			
3	GIN to JBGD	Out of parallelism			