



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-990		
Induced Voltage (IV) calculation in respect of PTCC proposal for 220 kV DC line from 220 kV switching station at Lingapura to 220/66 kV SS at Neelagunda (95.245 km)- regd.		
S. No	Reference No.	Dated
(i)	KPTCL: CEE/SLDC/PTCC/F-3338/11509-18	04.02.2022
(ii)	KPTCL: CEE/SLDC/PTCC/CEA/F-3338/7836-838	25.11.2025
(iii)	BSNL: SR-PTCC/F-3338/5	12.11.2025
(iv)	South Western Railway: SG/SWR/PTCC/Corres/E:2-12	20.11.2025
(v)	Defense: B/46937/Sigs 7(b)/2765	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 BSNL and South Western Railway with respect to details furnished vide above reference (iii) and (iv) respectively has been computed. The voltage likely to be induced on paralleling Block and Telecom circuits 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 has issued No Objection Certificate (NOC) vide reference (v) (attached as Annexure -III).

Both SS are existing therefore EPR calculation is not warranted.

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 nd Floor, Sanchar Complex, WMS Compound, Jayanagar 5 th Block, 9 th Main, 47 th 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-990 Name of the Power line: 220 kV DC line from 220 kV switching station at Lingapura to 220/66 kV SS at Neelagunda			Map Scale : 1 cm= 500 m Total Length: 95.345 km S.R. Value : 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/F-3338/5 Dated 12.11.2025

Munirabad Exchange – M (F – 3338)

M-M1	Munirabad T/E to lake Viewe	IV less than 430V			
M-M2	Munirabad T/E to Hosalingapur	2.15	0.0133	13505	180
M-M3	Munirabad T/E to Horticulure College	IV less than 430V			
M-M4	Munirabad T/E to Main Bazar SBI Raod				
M-M5	Munirabad T/E Munirabad By Pass Road	1.8	0.022	13942	307
M-M6	Munirabad T/E to Power House CE Office	IV less than 430V			

Hintal Exchange – H (F-3338)

H-H1	Hintal Exchange to Huligi Temple Cross Road	Out of Parallelism			
H-H2	Hintal Exchange to Huligi and Munirabad Railway Station	1.25	0.009	14092	127
H-H3	Hintal Exchange to Hintal Village	Out of Parallelism			
H-H4	Hintal Exchange to Kampasagar Road				
H-H5	Hintal Exchange to Durgamma Temple				

Bandiharlapur Exchange – B (F-3338)

B-B1	Bandiharlapur Exchange to Bhoruka Factory	Out of Parallelism			
B-B2	Bandiharlapur Exchange to OLD Harlapur	IV less than 430V			
B-B3	Bandiharlapur Exchange to Bandi Harlapur Village	Out of Parallelism			
B-B4	Bandiharlapur Exchange to Bandi Harlapur Panchayat Side				

Agalkera Exchange – A (F-3338)

A-A1	Agalkera Exchange to Shivapur Village	IV less than 430V			
A-A2	Agalkera Exchange to Agalkera Village	Out of Parallelism			
A-A3	Agalkera Exchange to Temple Side				
A-A4	Agalkera Exchange to Behind Exchange				

ANNEXURE-II

CEA Case No.: KNK-990 Name of the Power line: 220 kV DC line from 220 kV switching station at Lingapura to 220/66 kV SS at Neelagunda			Map Scale : 1 cm= 500 m Total Length: 95.345 km S.R. Value : 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.

SWR Letter No: SG/SWR/PTCC/Corres/E:2-12 Dated 20.11.2025

1.	GIN-MRB	1.25	0.0024	14092	34
2.	MRB-HPT	4.2	0.0065	13462	88
3.	HPT-KGW	5.45	0.0013	12406	16
4.	KGW-PKL	0.65	0.00007	12308	1
5.	HPT-VYS	3.9	0.015	12750	191
6.	VYS-VC	4.6	0.035	11938	418
7.	VC-HBI	25.9	0.059	14634	863
8.	HBI-KTY	7.9	0.0029	7417	22

Tele : 23019746

KNK-990

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

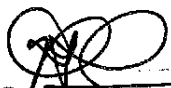
B/46937/Sigs 7(b)/2765

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 DC LINE ON DC TOWERS
FROM EXISTING 220KV SWITCHING STATION AT LINGAPURA IN KOPPAL
TALUK AND DISTRICT TO THE EXISTING 220/66KV SS AT NEELAGUNDA IN
HARAPANAHALLI TALUK AND BALLARI DISTRICT**

1. Refer your letter No CEE/SLDC/PTCC/F-3338/-11509-18 dt 04 Feb 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 Choyat)
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

Dei
V
JK

