



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
Division



CEA Case No.: KNK-1176		
Induced Voltage (IV) calculation for PTCC proposal of 765KV Koppal-II PS - Narendra (New) D/C Line (118.2 km)- regd.		
S.No.	Reference	Dated
(i)	PGCIL: SR-II/Koppal CAO/PTCC	12.02.2025
(ii)	PGCIL: Email Tower Schedule and EMD Parameters	31.03.2026
(iii)	BSNL: SR-PTCC/PowerGrid/MKT06082025001/2025-26/3	10.11.2025
(iv)	South Western Railway: SG/SWR/PTCC/PGCIL/2974	27.01.2026
(v)	Defense: B/46937/Sigs 7(b)/5469	20.02.2026

The PTCC proposal submitted vide above reference(s) (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), Southern Zone has given NOC vide reference (iii) above.

ADG (Telecommunications) has issued No Objection Certificate (NOC) vide reference (v) above (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
765/400 kV Narendra GIS	212.16	44.1	0.03	441	220	NA	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.	DET (PTCC), Southern Zone	BSNL, Inspection Circle, 2nd Floor, Sanchar Complex, WMS Compound, Jayanagar 5th Block, 9th Main, 47th Cross, Bangalore-560043	
2.	PCSTE (South Western Railway)	Principal Chief Signal & Telecom Engineer, Rail Soudha, Gadag Road, Hubballi-580020	
3.	M/s PGCIL	B-9, Qutub Institutional Area, Katwaria Sarai, New – Delhi - 110016	Copy for information

ANNEXURE-I

CEA Case No.: KNK-1176 Name of the Power line: 765KV Koppal-II PS - Narendra (New) D/C Line			Map Scale : 1 cm= 500 m Total Length: 118.2 km S.R. Value : 7500 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 Letter No: SG/SWR/PTCC/PGCIL/2974 Dated 27.01.2026					
1.	JRKT-LMT	1.1	0.000099	7436	1
2.	LMT-WDL	5.21	0.0005	23586	12
3.	WDL-BSRX	Outside IV consideration zone			
4.	BSRX-KDGI	Out of Parallelism			
5.	KDGI-MVD	0.216	0.00002	925	0.02
6.	YLBA-HAPR	1.3	0.00012	32794	4
7.	HAPR-LNBI	3.4	0.001	31394	31
8.	LNBI-KHTI	4.99	0.00062	29923	19

Directorate General of Signals (Signals-7)
General Staff Branch
Integrated HQ of MoD (Army)
DHQ PO, New Delhi -11

KNK-1176

B/46937/Sigs-7(b)/5469 dt 20 Feb 2026

M/S POWERGRID KOPPAL GADAG TRANSMISSION LIMITED
Southern Region-II, region-II, RHQ, Near RTO Driving Test Track,
Singanayakanahalli Village, Yelahanka Taluk, Bangalore-560064

CONSTRUCTION OF KOPPAL -II PS-NARENDRA (NEW) 765 KV D/C
TRANSMISSION LINE - PROPOSAL FOR PTC APPROVAL

1. Ref your letter No SR-II/KOPPAL CAO/PTCC/504 dt 02 Dec 2025
2. No Objection Certificate (NOC) is **accorded** based on inputs provided as per Map sheet received vide your letter mentioned above.
3. Documents alongwith map sheets (in original) are returned herewith for your further necessary action.

(Signature)



(Puneet Lakhanpal)
Lieutenant Colonel
General Staff Officer Grade-1(Communication)
for Additional Director General(Telecommunication)

Copy to:-

HQ Southern Comd (Sigs)
PIN -908541
C/o 56 APO

Chief Engineer, PSCD Division
Central Electricity Authority
Room No 702 (North Wing)
Sewa Bhawan, RK Puram, Sector-1
New Delhi-110 066

For info pl.

Central Electricity Authority
PSCD Division
Diary No. 663
Date 2.3.2026

(Signature)
02/03