



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-1157		
Induced Voltage (IV) calculation in respect of PTCC proposal for 220kV SC UG cable from 220/66kV Doddaballapura SS to 220/66/11kV Foxconn SS (9.493 km)- regd.		
S. No	Reference No.	Dated
(i)	KPTCL: CEE/SLDC/PTCC/F-3768/3046-57	04.09.2024
(ii)	KPTCL : Email	25.06.2025
(iii)	BSNL: SR-PTCC/SKT6678/6	01.03.2025
(iv)	South Western Railway: SG/SWR/PTCC/Corres/E:2-12	16.10.2024
(v)	Defense: B/46937/Sigs 7(b)/4152	06.11.2024

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 references (iii) and (iv) 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.

ADG (Telecommunications) has issued No Objection Certificate (NOC) vide reference (v) above (attached as Annexure –III).

EPR Zones for proposed substation 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
220/66/11 kV Foxconn SS	36.2	37.5	0.8	2489	1635	119	72

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, 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), KPTCL	Chief Engineer Electricity, SLDC #28, Race Course Road, Bengaluru-560009	Copy for information

ANNEXURE-I

CEA Case No.: KNK-1157 Name of the Power line: 220kV SC UG cable from 220/66kV Dodballapura SS to 220/66/11kV Foxconn SS			Map Scale : 1 cm= 500 m Total Length : 9.493 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 Letter No: SR-PTCC/SKT6678/6 **Dated** 01.03.2025

DODBALLAPUR TELEPHONE EXCHANGE

D - D1	Dodballapura Exchange to T.B. Cross Route	IV less than 430V			
D – D5	Dodballapura Exchange to T.B. Cross Route to Raghunathapura	4.9	0.0258	8166	211
D – D6	Dodballapura Exchange to T.B. Cross Route to Palani Jogi	IV less than 430V			
D – D7	Dodballapura Exchange to T.B. Cross Route to Nandi Mori				
D- D2	Dodballapura Exchange to Aralu Malige				
D- D3	Dodballapura Exchange to R.S.D.				
D – D4	Dodballapura Exchange to Kodigehalli				
D – D8	Dodballapura Exchange to Court Route				

DODBALLAPUR INDUSTRIAL TELEPHONE EXCHANGE

E – E1	Dodballapura Industrial Telephone Exchange to Yellapura	IV less than 430V			
E – E2	Dodballapura Industrial Telephone Exchange to Birla Factory				
E – E3	Dodballapura Industrial Telephone Exchange to Felsomai Medhiya				
E – E4	Dodballapura Industrial Telephone Exchange to Bachalli				

RAJGHATTA TELEPHONE EXCHANGE

E – E1	Rajghatta Telephone Exchange to Gandarajapura Route	2	0.00046	17157	8
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ANNEXURE-II

CEA Case No.: KNK-1157 Name of the Power line: 220kV SC UG cable from 220/66kV Doddaballapura SS to 220/66/11kV Foxconn SS			Map Scale : 1 cm= 500 m Total Length : 9.493 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/Corres/E:2-12 Dated 16.10.2024					
1.	Rajakunti – Dodballapur	2.2	0.00026	3923	1
2.	Dodballapur - Oddarahalli	3.693	0.00058	9619	6
3.	Oddarahalli - Makalidurga	Out of Parallelism			

Annexure III

Directorate General of Signals
(Signals 7)
General Staff Branch
Integrated HQ of MoD (Army)
Room No
DHQ PO, New Delhi - 110011

B/46937/Sigs-7(b)/4152

06 Nov 2024

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 THE PROPOSED 220KV, 1000SQMM SC UG
CABLE ROUTE FROM EXISTING 220/66KV DODDABALLAPURA
(NRS) STATION TO PROPOSED 220/66/11KV S/S IN THE PREMISES
OF M/S FOXCONN HON HAI TECHNOLOGY INDIA MEGA
DEVELOPMENT PVT LTD., SUB-STATION, PLOT NO. 133,**

1. Refer your letter No CEE/ SLDC/ PTCC /F-3768/3046-57 dt 04 September 2024.
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.



(Handwritten signature)

(Puneet Lakhanpal)
Lieutenant Colonel
General Staff Officer Grade-I
for ADG (Telecom)

Enclosures: As above

Internal: -

HQ Southern Comd (Sigs)

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For info pl.