



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-1156		
Induced Voltage (IV) calculation in respect of PTCC proposal for 220 kV DC line (partly OH and partly UG cable) from 400/220kV Mylasandra SS to 220 kV GIS Switching Station near Khodays Glass Factory (OH = 7.038 km + UG cable = 1.8 km = 8.838 km) - regd.		
S. No	Reference No.	Dated
(i)	KPTCL: CEE/SLDC/PTCC/F-3765/2913-24	26.08.2024
(ii)	KPTCL: Email EMD parameters	09.02.2026
(iii)	BSNL: SR-PTCC/SKT 6464/06	04.01.2025
(iv)	South Western Railway: SG/SWR/PTCC/F-3765/2813	05.11.2024
(v)	Defense: B/46937/Sigs 7(b)/4142	30.10.2024

The PTCC proposal submitted vide above references (i) and (ii) has been examined. The LF induction on Telecom circuits of BSNL with respect to details furnished vide above reference (iii) has been computed. The voltage likely to be induced on paralleling Telecom circuits of BSNL under Single Line to Ground fault condition are enclosed at Annexure-I. The screening factors as applicable have been considered. SWR has issued No Objection Certificate (NOC) vide reference (iv) 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
220/66/11 kV GIS Switching Station near Khodays Glass Factory	41.35	24.615	0.95	2207	1446	97	55

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

ANNEXURE-I

CEA Case No.: KNK-1156 Name of the Power line: 220 kV DC line (partly OH and partly UG cable) from 400/220kV Mylasandra SS to 220 kV GIS Switching Station near Khodays Glass Factory (OH = 7.038 km + UG cable = 1.8 km = 8.838 km)			Map Scale : 1 cm= 500 m Total Length : 8.838 km S.R. Value : 25000 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/SKT 6464/06 **Dated** 04.01.2025

TALAGHATTAPURA TE

P-P1	Talaghattapura Exge to Pillar 3	Out of Parallelism			
P-P2	Talaghattapura Exge to Vakil Garden				

INDIA HERITAGE TE

P-P1	India Heritage Exge to Pillar 1	IV less than 430 V			
P-P2	India Heritage Exge to Pillar 2	0.6	0.0114	12160	139
P-P3	India Heritage Exge to Pillar 3	IV less than 430 V			

TALAHALLI TE

P-P1	Talahalli Exge to Pillar 1	IV less than 430 V			
P-P2	Talahalli Exge to Pillar 2	Out of Parallelism			
P-P3	Talahalli Exge to Pillar 3	0.6	0.0163	26100	425

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

KNK-1156


B/46937/Sigs 7(b)/4142

30 Oct 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 DC LINE FROM
 EXISTING 400/220KV MYLASANDRA STATION TO PROPOSED 220KV
 GIS KHODAYS SWITCHING STATION (PARTLY OVERHEAD LINE AND
 PARTLY UG CABLE) IN BENGALURU URBAN DISTRICT**

1. Refer your letter No CEE/ SLDC /PTCC /F-3765/2913-24 dt 26 Aug 2024 (copy att).
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.


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

Enclosures : As above

Copy to :-

Chief Engineer, PSCD Division
 Central Electricity Authority
 Room No 702 (North Wing)
 Sewa Bhawan, R.K. Puram, Sector-1
 New Delhi-110066

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


- for information

Central Electricity Authority

PSCD Division

Diary No. 1473

Date 26.11.24

Sh. Anshu (DD)

 27/11