



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. : MRA-1297		
Induced Voltage (IV) calculation in respect of PTCC proposal for 220kV DC UG cable from 220/22kV MSETCL Hinjewadi GSS to 220/33kV Pune Metro Line-3 Receiving Substation , Hinjewadi (1 km)- regd.		
S. No	Reference No.	Dated
(i)	MSETCL: MSETCL/CO/PS/PTCC/In/B-615/01976	13.03.2025
(ii)	MSETCL : Email	25.06.2025
(iii)	BSNL: IC/MBI/PTCC/MRA-2706/03	14.05.2025
(iv)	Central Railway: N.705/T/PTCC/220kV/MAH-942	10.06.2025
(v)	Defense: B/46937/Sigs 7(b)/4623	09.06.2025

The PTCC proposal submitted vide above references (i) and (ii) has been examined. The LF induction on Block and Telecom circuits of BSNL with respect to details furnished vide above reference (iii) has been computed. The voltage likely to be induced on paralleling Block and Telecom circuits of BSNL under Single Line to Ground fault condition are enclosed at Annexure-I. The screening factors as applicable have been considered. GM S&T (Central Railway) has issued NOC vide reference (iv) above subject to condition that any adverse effect observed on Signal & Telecom Circuits of Central Railway after charging the proposed line & substation, the power agency (MSETCL) will bear the cost of damages to Central Railway assets.

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

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
220/33 kV Pune Metro Line-3 RSS	34.7	20	0.48	740	478	13	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.	Divisional Engineer (PTCC), Western Zone	QA & Inspection circle, 1 st floor, D- wing, BSNL Admin Bldg., Junu Tara Road, Santacruz (West), Mumbai-400054	
2.	Chief Engineer (Projects Schemes)	MahaTransco C.O., ‘Prakashganga’ Plot No C-19, E- Block, BKC, Bandra(E) , Mumbai-400051	

ANNEXURE-I

CEA Case No.: MRA-1297 Name of the Power line: 220kV DC UG cable from 220/22kV MSETCL Hinjewadi GSS to 220/33kV Pune Metro Line-RSS, Hinjewadi			Map Scale : 1 cm= 500 m Total Length : 1 km S.R. Value : 5000 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: IC/MBI/PTCC/MRA-2706/03 **Dated** 14.05.2025

DODBALLAPUR TELEPHONE EXCHANGE					
1.	Wakad 1200 Pr.	Out of Parallelism			
2.	Wakad 800 Pr.				
3.	Wakad 400 Pr.				
4.	Wakad 200 Pr.				
5.	Hinjewadi Ph.I 800 Pr.				
6.	Hinjewadi Ph.II 100 Pr.				
7.	Piller Shell				

Annexure II

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



B/46937/Sigs-7(b)/4623

09 Jun 2025

✓ Chief Engineer (Project Schemes)
Maharashtra State Electricity Transmission Co. Ltd.
MahaTranzo C.O., 'Prakashganga
Plot No. C-19, E-Block, BKC,
Bandra (E) Mumbai-400051

**PTCC PROPOSAL FOR 220KV DC U/G CABLE FROM EXISTING 220KV
HINJEWADI S/S TO PROPOSED 220KV PUNE METRO LINE-3
RECEIVING SUBSTATION (RSS) AT MAAN, HINJEWADI, PUNE,
LENGTH=1KM**

1. Ref your Letter No MSETCL/CO/PS/PTCC/In. B-615/01976 dt 13 Mar 2025.
2. No Objection Certificate (NOC) is accorded based on inputs provided as per Map sheet received vide your letter mentioned above.
3. Documents along with map sheets (in original) are returned herewith for your further necessary action.



(Puneet Lakhanpal)
Lieutenant Colonel
General Staff Officer Grade-I (Communication)
for Additional Director General (Telecom)

Encl: As above

Copy to :-

HQ Southern Comd (Sigs)

Chief Engineer, PSCD Division
Central Electricity Authority
Room No 702 (North Wing)
Sewa Bhawan, RK Puram, Sector-4
New Delhi – 110 066

-- for info pl

for info pl
EBC/PTCC/MERC
23/06

