



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**

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<b>CEA Case No. : MRA-1326</b>		
<b>Induced Voltage (IV) calculation in respect of PTCC proposal for LILO of 220 kV D/C Kalwa- Bapgaon line at 220 kV Mankoli SS (0.299 km)- regd.</b>		
<b>S. No</b>	<b>Reference No.</b>	<b>Dated</b>
(i)	MSETCL: MSETCL/CO/PS/PTCC/In/B-620/08171	16.09.2025
(ii)	MSETCL: Email	30.10.2025
(iii)	BSNL: IC/MBI/PTCC/MRA-2741/04	14.10.2025
(iv)	Central Railway: N.705/T/PTCC/220kV/MAH-980	06.10.2025
(v)	MSETCL: Undertaking	29.10.2025

The PTCC proposal submitted vide reference (i) and (ii) has been examined. The LF induction on Block and Telecom circuits of Central 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 Central Railway under Single Line to Ground fault condition are enclosed at Annexure-I. The screening factors as applicable have been considered. DET (PTCC), WZ has issued NOC vide reference (iii) above.

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
220/22 kV Mankoli SS	49	30	0.15	468	293	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.

Telecommunication details from Defense are pending and the power utility has shown urgency for charging of the line vide reference (ii) above and requested for provisional PTCC approval vide above reference (iv). Taking above into consideration, necessary action regarding issuance of provisional PTCC approval for the subject cited transmission line may be taken under intimation to this office.

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 <sup>st</sup> floor, D- wing, BSNL Admin Bldg., Juhu Tara Road, Santacruz (West), Mumbai-400054	
2.	PCSTE (Central Railway)	O/o Principal Chief Signal & Telecom Engineer, S&T Department, 3rd Floor, Annexe Building Chhatrapati Shivaji Maharaj Terminus, Mumbai-400001	
3.	Director General of Signals	General Staff Branch, Integrated HQ, MoD (army), Sena Bhawan, DHQ, PO, New Delhi- 110 105	With a request to provide details of Telecom assets/ NOC at the earliest for issuance of final RAC.
4.	Chief Engineer (Projects Schemes Deptt.)	MahaTransco C.O., 'Prakashganga' Plot No C-19, E- Block, BKC, Bandra(E) , Mumbai-400051	Copy for Information

**ANNEXURE-I**

<b>CEA Case No.:</b> MRA-1326 Name of the Power line: LILO of 220 kV D/C Kalwa- Bapgaon line at 220/22 kV Mankoli SS			<b>Map Scale</b> : 1 cm= 500 m <b>Total Length</b> : 0.299 km <b>S.R. Value</b> : 20000 Ohm-cm		
<b>S.No.</b>	<b>Telecom. Details</b>	<b>Length of Parallelism in Km.</b>	<b>Mutual Coupling in Ohms.</b>	<b>Effective Fault current in Amps.</b>	<b>I.V in Volts.</b>

<b>Central Railway Letter No:</b> N.705/T/PTCC/220kV/MAH-980			Dated 06.10.2025		
1.	KLVA-DW	0.3	0.0003	27426	8