



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-1293</b>		
<b>Induced Voltage (IV) calculation in respect of PTCC proposal for LILO of 220 kV D/C Barshi – Osmanabad line at 220 kV Barshi TSS(4.604 km)- regd.</b>		
<b>S. No</b>	<b>Reference No.</b>	<b>Dated</b>
(i)	MSETCL: MSETCL/CO/PS/PTCC/In/B-613/01003	05.02.2025
(ii)	MSETCL : Email	01.08.2025
(iii)	BSNL: IC/MBI/PTCC/MRA-2702/03	31.07.2025
(iv)	Central Railway: N.705/T/PTCC/220kV/MAH-937	27.03.2025
(v)	Defense: B/46937/Sigs 7(b)/4456	22.04.2025

The PTCC proposal submitted vide above references (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), Mumbai (BSNL) 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 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
220kV Barshi TSS	44.8	30	0.439	1327	863	39	14

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 <sup>st</sup> floor, D- wing, BSNL Admin Bldg., Junu Tara Road, Santacruz (West), Mumbai-400054	
2.	SSSTE/TELE/HQ	O/o Principal Chief Signal & Telecom Engineer, S&T Department, 3 <sup>rd</sup> Floor, Annexe Building Chhatrapati Shivaji Maharaj Terminus, Mumbai-400001	
3.	Chief Engineer (Projects Schemes)	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-1293 Name of the Power line: LILO of 220kV DC Barshi – Osmanabad line at 220 kV Barshi TSS.			<b>Map Scale</b> : 1 cm= 500 m <b>Total Length</b> : 4.604 km <b>S.R. Value</b> : 10000 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>

**Central Railway Letter No: N.705/T/PTCC/220kV/MAH-937 Dated 27.03.2025**

1.	Barshi - Kuslamb	4	0.0022	25470	56
2.	Barshi - Uplai	0.55	0.0002	26333	5

## Annexure II



Directorate General of Signals  
(Signals 7)  
General Staff Branch  
Integrated HQ of MoD (Army)  
Room No 648A  
DHQ PO, New Delhi - 110011

B/46937/Sigs-7(b)/4456

2  
Apr 2025

Chief Engineer (Project Schemes Deptt)  
Maharashtra State Electricity Transmission Co. Ltd.  
MahaTransco C.O. Prakashganga  
Plot No. C-19, E-Block, BKC, Bandra (E),  
Mumbai – 400 051

**PTCC PROPOSAL FOR 220KV DC LINE, LILO ON EXISTING 220KV  
BARSHI-OSMANABAD LINE TO PROPOSED 220KV BARSHI TSS,  
LENGTH=4.604KMS**

1. Ref your letter No MSETCL/CO/PS/PTCC/In/B-613/01003 dt 05 Feb 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)

*[Signature]*

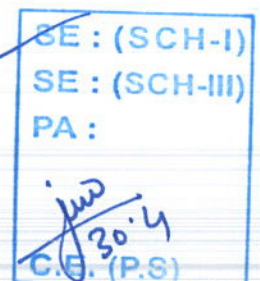
Encl: As above

Copy to: -

HQ Southern Comd (Sigs) - for info pl

*[Signature]*  
EE (PTCC/MERC)

*[Signature]*  
02/05



*[Handwritten notes]*  
Pl. do update the  
for proposal  
2/5/25