



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
Division

CEA Case No. : MRA-1304		
Induced Voltage (IV) calculation for PTCC proposal of LILO of 220 kV KVTPL to 220 kV TATA Saki Transmission Line at 220 kV AEML Chandivali S/s (U/G Cable) [Length – 0.3 km] – Regd.		
S. No	Reference No.	Dated
(i)	Adani Electricity: AEML/TCC/Chandivali/24-25/011	18.03.2025
(ii)	Adani Electricity: e-Mail	28.10.2025
(iii)	BSNL: IC/MBI/PTCC/MRA-2734/03	10.09.2025
(iv)	Central Railway: N.705/T/PTCC/220kV/MAH-946	14.05.2025
(v)	Defense: B/46937/Sigs-7(b)/4643	27.05.2025

The PTCC proposal submitted vide reference (i) & (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. DG Signals, MoD vide reference (v) have issued No Objection Certificate (NOC).

EPR Zones for proposed substation is 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 kV AEML Chandivali S/s	49	25	0.147	370	228	NA	NA

As per the Telecom Details submitted by BSNL vide above reference (iii), several BTS are present within 8 km boundary and they are not falling within the EPR zone of proposed 220 kV S/s.

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.

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	
2.	GM (S&T) Central Railway	Pr.CSTE, S&T Department 3 rd Floor, CST Terminal Mumbai	
3.	Project In-Charge AEML	SVP Raod, Borivalli Mumbai	

ANNEXURE-I

CEA Case No. : MRA-1304			Map Scale : 1 cm= 500 m		
Name of the Power line: LILO of 220 kV KVTPL to 220 kV TATA Saki Transmission Line at 220 kV AEML Chandivali S/s (U/G Cable)			Total Length : 0.3 km		
			S.R. Value : 50000 Ohm-cm		
S.No	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.
Central Railway : N.705/T/PTCC/220kV/MAH-946 Dated 14.05.2025					
<u>Affected Blocks & Telecom Circuits Details</u>					
1	CLA R/s to VVH R/s		-Out of Parallelism-		
2	VVH R/s to GC R/s		-Out of Parallelism-		
3	GC R/s to VK R/s		-Out of Parallelism-		
4	VK R/s to KJRD R/s		-Out of Parallelism-		