



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-1280		
Induced Voltage (IV) Calculation for LILO of 220 kV D/C Kalwa-Pawane transmission line at proposed 220 kV GIS of M/s Amanthin Info Parks Private Limited at TCC Industrial area, MIDC, Turbhe, Thane (Length: 1.1069 km)		
S. No	Reference No.	Dated
(i)	MSETCL/CO/PS/PTCC/In/B-605/05699	21.08.2024
(ii)	MSETCL E-mail:	04.03.2025
(iii)	BSNL: IC/MBI/PTCC/MRA-2675/03	10.12.2024
(iv)	Central Railway: N.705/T/PTCC/220kV/MAH-919	15.10.2024
(v)	Defense: B/46937/Sigs 7(b)/4115	15.10.2024

The PTCC proposal submitted vide reference (i) has been examined. The LF induction on communication circuits of MTNL and Central Railway with respect to details furnished vide above references (iii) and (iv) respectively have been computed. The voltages likely to be induced on paralleling communication cables of MTNL and Central Railway under Single Line to Ground fault condition are enclosed at Annexure-I and Annexure-II respectively. The screening factors as applicable have been considered.

DG Signals, MoD vide reference (v) has given their NOC for charging the line.

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 kV GIS of M/s Amanthin Info Parks Private Limited at TCC Industrial area, MIDC, Turbhe, Thane	49.3	35	0.43	1675	1092	57	25

As per the details submitted by MTNL, No Telephone Exchange of MTNL is falling within 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.

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 (Project Schemes)	MSETCL, MahaTransco, Prakashganga, Plot No. C-19, E-Block, BKC, Bandra € , Mumbai – 400 051

ANNEXURE-I

CEA Case No.: MRA-1280		Map Scale : 1 cm= 500 m			
Name of the Power line: LILO of 220 kV D/C Kalwa-Pawane transmission line at proposed 220 kV GIS of M/s Amanthin Info Parks Private Limited at TCC Industrial area, MIDC, Turbhe, Thane		Total Length : 1.1069		S.R. Value : 10000 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: IC/MBI/PTCC/MRA-2675/03 Date: 10.12.2024					
1	EL Zone RSU		Out of parallelism		
2	KKR		Out of parallelism		
3	MBP		Out of parallelism		
	Vashi		Out of parallelism		
	Sanpada		Out of parallelism		
4	Vashi Rly Stn		Out of parallelism		
5	VSI Sec 7		Out of parallelism		
6	Turbhe	1.1	0.0317	12159	385
7	APMC		Out of parallelism		
8	Nerul		Out of parallelism		
9	Sukhkarta		Out of parallelism		
10	CBD Belapur		Out of parallelism		
11	Parsik Hill RSU		Out of parallelism		
12	Vanshree RSU		Out of parallelism		

ANNEXURE-II

CEA Case No.: MRA-1280 Name of the Power line: LILO of 220 kV D/C Kalwa-Pawane transmission line at proposed 220 kV GIS of M/s Amanthin Info Parks Private Limited at TCC Industrial area, MIDC, Turbhe, Thane			Map Scale : 1 cm= 500 m Total Length : 1.1069 S.R. Value : 10000 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-919 Date: 15.10.2024					
1	VSH-PNVL	1.35	0.00122	31148	38
2	TNA-NEU	0.95	0.00117	31624	37
3	DW-PNVL	Out of IV consideration zone			