



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-1260		
Induced Voltage calculation for PTCC proposal of LILO of 220 kV Mahape – Tiffil line through UG cable at 220 kV GIS S/s of M/s STT Global Data Centres India Pvt. Ltd. (Length: 0.448 Kms) - regd.		
S. No	Reference No.	Dated
(i)	MSETCL/CO/PS/PTCC/In/B-602/No 02176	03.04.2024
(ii)	BSNL: IC/MBI/PTCC/MRA-2627/03	26.06.2024
(iii)	Central Railway: N.153/PTCC/220kV/MAH-873	21.06.2024
(iv)	Defense: B/46937/Sigs 7(b)/3865	04.06.2024

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 reference (ii) and (iii) respectively have been computed. The voltage 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 have issued No Objection Certificate (NOC) for charging of the line vide reference (iv) (Annexure-III).

EPR zone for the proposed substation is mentioned below:

Name of the proposed Substation	Half diagonal distance, D/2 (mts)	Fault Current I (KA)	Resistance of Earth Mat, R (ohms)	d (mts) at 430 V	d (mts) at 650 V	d (mts) at 7kV	d (mts) at 10kV
220 kV GIS S/s of M/s STT Global Data Centres India Pvt. Ltd.	12.6	30.21	0.93	811	532	38	23

As per the details submitted by BSNL vide reference (ii) above, **EL Zone RSU Telephone Exchange of MTNL is falling in the contour of 430 V EPR zone of the proposed substation.**

Taking above into consideration, necessary action for issuance of PTCC route approval may be taken under intimation to this office.

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.	GM (S&T)	Central Railway, Office of PCSTE, 3 rd Floor, Annex building, CSMT Mumbai – 400 001	
3.	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

CEA Case No.: MRA-1260		Map Scale : 1 cm= 500 m			
Name of the Power line: LILO of 220 kV Mahape – Tiffil line through UG cable at 220 kV GIS S/s of M/s STT Global Data Centres India Pvt. Ltd.		Total Length : 0.443 km			
		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-2627/03 Date: 26.06.2024					
1	Cables from Kharghar TE				Out of parallelism
2	Cables from Nerul TE				Out of parallelism
3	Cables from APMC TE				Out of parallelism
4	Cables from EL Zone RSU TE				IV less than 430 V
5	Cables from KKR TE				IV less than 430 V
6	Cables from MBP TE				IV less than 430 V
7	Cables from Rabale TE				Out of parallelism
8	Cables from Sanpada TE				Out of parallelism
9	Cables from Turbhe TE				Out of parallelism
10	Cables from Vashi TE				Out of parallelism
11	Cables from Vashi Rly Stn TE				Out of parallelism
12	Cables from VSI Sec 7 TE				Out of parallelism
13	Cables from Airoli TE				Out of parallelism
14	Cables from Kausa TE				Out of parallelism
15	Cables from NMUM TE				Out of parallelism
16	Cables from Riverwood TE				Out of parallelism

ANNEXURE-II

CEA Case No.: MRA-1260			Map Scale : 1 cm= 500 m		
Name of the Power line: LILO of 220 kV Mahape – Tiffil line through UG cable at 220 kV GIS S/s of M/s STT Global Data Centres India Pvt. Ltd.			Total Length : 0.443 km		
			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.153/PTCC/220kV/MAH-873 Date: 21.06.2024					
1	AIRL - TUH	0.25	0.000764	21424	17
2	TUH-JNJ-NEU	Out of parallelism			
3	TUH-SNPD	Out of parallelism			
4	SNPD-VSH	Out of parallelism			