

I/34575/2024



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-1235		
Induced Voltage (IV) calculation for PTCC proposal of 220 kV D/C UG cable (1200 sqmm) from 400/220 kV Hinjewadi Phase-III S/s to proposed 220/11 kV GIS Nextra Data Limited S/s, Hinjewadi (Length: 0.3 kms). - regd.		
S. No	Reference No.	Dated
(i)	NIL	NIL (received on 07.12.2023)
(ii)	Nextra/STDL/PTCC/1403	14.03.2024
(iii)	BSNL: IC/MBI/PTCC/MRA-2607/03	18.01.2024
(iv)	Central Railway: N.153/PTCC/220kV/MAH-858	21.02.2024
(v)	Defense: B/46937/Sigs 7(b)/3620	31.01.2024

The PTCC proposal submitted vide reference (i) has been examined.

The LF induction on communication circuits of BSNL with respect to details furnished vide above reference (iii) has been computed. The voltage likely to be induced on paralleling communication circuits of BSNL under Single Line to Ground fault condition are enclosed at Annexure-I. The screening factors as applicable have been considered.

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
220/11 kV GIS Nextra Substation, Hinjewadi	34.9	30	0.023	21	2	NA	NA

As per the details submitted by BSNL vide reference (ii) above, no telephone exchanges are falling in the EPR zone of the proposed substation.

Telecommunication details from DG Signals, MoD are awaited however, vide reference (ii) above, M/s Nextra Data Limited have informed that all construction related work of the transmission line has completed and the line is awaiting charging due to want of PTCC approval. So as to charge the subject cited transmission line as per schedule, M/s Nextra Data Limited has requested for issuance of provisional PTCC clearance.

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Taking above into consideration, necessary action for issuance of provisional PTCC route approval may be taken under intimation to this office. LF induction on telecommunication circuits of Defense, will be communicated after the receipt of details from DG Signals, MoD.

Encl.: As above

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.	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 IV calculation and issuance of final RAC.
3.	M/s Nxtra Data Limited	Nxtra Data Limited, Airtel Center, Plot No. 16, udyog Vihar, Phase-IV, gurugram – 122 015	Copy for information

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ANNEXURE-I

CEA Case No.: MRA-1235 Name of the Power line: 220 kV D/C UG cable (1200 sqmm) from 400/220 kV Hinjewadi Phase-III S/s to proposed 220/11 kV GIS Nextra Data Limited S/s, Hinjewadi			Map Scale : 1 cm= 500 m Total Length : 0.3 km S.R. Value : 1000 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-2607/03 Dated: 18.01.2024					
1	Hinjewadi Telephone Exchange (800 pair)				Out of parallelism
2	Hinjewadi Telephone Exchange (200 pair)				Out of parallelism
3	Hinjewadi Telephone Exchange (100 pair)				Out of parallelism
4	Hinjewadi Telephone Exchange (50 pair)				Out of parallelism
5	Hinjewadi Telephone Exchange (400 pair)				Out of parallelism