

I/32897/2024



सत्यमेव जयते

भारत सरकार
Government of India
विद्युत मंत्रालय
Ministry of Power
केन्द्रीय विद्युत प्राधिकरण
Central Electricity Authority
विद्युत संचार विकास प्रभाग
Power Communication Development Division

CEA Case No. : UP-635		
Induced Voltage (IV) calculation for LILO of 220 kV Motiram Adda - Barahuwa Transmission Line at 220/33 kV Khorabar S/s [Length - 2.82 km] – Regd.		
S. No	Reference No.	Dated
(i)	UPPTCL: 1855/ETD-I(G)/PTCC	16.10.2023
(ii)	UPPTCL: 34ETD-I(G)/PTCC	04.01.2024
(iii)	BSNL: DET/PTCC/ND/DV-10279/UP-1155/2023-24/	27.12.2023
(iv)	Northern Eastern Railway: Letter	18.12.2023

The PTCC proposal submitted vide reference (i) & (ii) has been examined. The LF induction on Block and Telecom circuits of North Eastern 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 North Eastern Railway under Single Line to Ground fault condition are enclosed at Annexure-I. The screening factors as applicable have been considered. DET, BSNL NZ has issued No Objection Certificate (NOC) vide reference (iii).

EPR zone for 220 kV proposed S/S 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
220/33 kV Khorabar S/s	65	28	0.094	333	198	N.A	N.A

As per the Telecom Details submitted by BSNL vide above reference (iii), no telephone exchange of BSNL is falling within the EPR zone of proposed 220 kV Substation.

Telecommunication details from DG Signals, MoD are pending. However, vide above reference (ii), UPPTCL has shown urgency for charging the line and has requested for provisional PTCC clearance.

In view of the above, it is requested that provisional PTCC route approval may be issued for the subject transmission line under intimation to this office.

Encl.: As above

Director

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To,

1.	Divisional Engineer (PTCC), Northern Zone	BSNL, O/o PGM(North), QA & Inspection Circle D-Tax Building, Eastern Court, Janpath New Delhi-110001	
2.	GM (S&T)	North Eastern Railway Gorakhpur	
3.	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 issuance of final RAC.
4.	Executive Engineer UPPTCL	ETD-I 132 kV S/s, Gorakhpur	Copy for information.

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ANNEXURE-I

CEA Case No.: UP-635			Map Scale : 1 cm= 500 m		
Name of the Power line: LILO of 220 kV Motiram Adda - Barahuwa			Total Length : 2.82 km		
Transmission Line at 220/33 kV Khorabar S/s			S.R. Value : 5000 Ohm-cm		
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.
Northern Eastern Railway: Letter Dated 18.12.2023					
<u>Affected Blocks & Telecom Circuits Details</u>					
1	Gorakhpur Cant R/s to Chauri-Chaura R/s	0.6	0.00008	24980	2