



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. : RAJ – 897		
Induced Voltage (IV) calculation for LILO of one ckt of 220 kV D/C Ratangarh - khetri Transmission line at 220 kV GSS Jhunjhunu [Length- 1.523km]-Regd.		
S. No.	Reference No.	Dated
(i)	RRVPNL: RVPN/SE (QC, insp. & Montg.)/XEN (PTCC)/F.2135-A-00442 Rajkaj No. 17264118	20.08.2025
(ii)	BSNL: No.DE/PTCC/NZ/BSNL-TD/DV-10616/Raj-1645/2025-26	13.11.2025
(iii)	North Western Railway: SG/158/NWR/PTCC/1195	17.10.2025
(iv)	Defense: B/46937/Sigs 7(b)/5038	04.11.2025

The PTCC proposal submitted vide reference (i) has been examined. As per the Telecom Details submitted by BSNL vide above reference (ii), there is no copper cable or armoured OFC within 8 km boundary and hence IV computation is not done. The LF induction on Block and Telecom circuits of North Western Railway with respect to details furnished vide above reference (iii) has been computed. The voltage likely to be induced on paralleling Block and Telecom circuits of North Western Railway under Single Line to Ground fault condition are enclosed at Annexure-I. The screening factors as applicable have been considered. DG Signals, MoD has issued No Objection Certificate (NOC) vide reference (iv). As all the associated S/s are existing ones, EPR zone verification is not warranted.

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.

Encl.: As above

Chief Engineer

To,

1.	Divisional Engineer (PTCC), North Zone	O/o GM(N), QA & Inspection circle, D-Tax Building, Eastern Court Janapath, New Delhi-110001	
2.	Dy CSTE/Tele NWR/Jaipur	HQ's Office, Room No. 136, First Floor, Near Jawahar Circle, Jaipur-302017	Annexure-I
3.	SE (QC, Insp. & Montg.)	O/o Superintending Engineer (QC, Inspection & Monitoring Room No. 320, Vidyut Bhawan, Jyoti Nagar, Jaipur – 302005	Copy for information.

ANNEXURE-I

CEA Case No.: RAJ - 897			Map Scale : 1 cm= 500 m		
Name of the Power line: PTCC proposal for LILO of one ckt of 220 kV D/C Ratangarh - khetri Transmission line at 220 kV GSS Jhunjhunu [Length-1.5km]			Total Length : 1.526 km		
			S.R. Value : 25000 Ohm-cm		
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.
North Western Railway: SG/158/NWR/PTCC/1195 Dated 17.10.2025					
<u>Affected Blocks & Telecom Circuits Details</u>					
1.	Dundlod Mukangarh – Nua	Out of Parallelism			
2.	Nua –Jhunjhunu	1.52	0.00595	17983	107
3.	Jhunjhunu - Ratanshahar	Out of Parallelism			