



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. : MP-551		
Induced Voltage (IV) calculation for PTCC proposal of LILO of both circuits of 220 kV D/C Jabalpur - Narsinghpur Transmission Line at 765 kV S/s Bhedaghat (PGCIL) (Length-7.696 km)- regd.		
S. No	Reference No.	Dated
(i)	MPPTCL: No.04-02/PTCC/2778/921	15.04.2025
(ii)	MPPTCL : e-mail	09.04.2026
(iii)	BSNL: IC/MBI/PTCC/MP received via e-mail	08.04.2026
(iv)	West Central Railway: WCR/N-HQ/120 PTCC-T-50-Pt-III Caes-474	25.06.2025
(v)	South East Central Railway: SECR/S&T/PTCC/MP/1201	02.12.2025
(vi)	Defense: B/46937/Sigs 7(b)/4767	12.08.2025

The PTCC proposal submitted vide references (i) and (ii) has been examined. As per the Telecom Details submitted by BSNL vide above reference (iii), 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 West Central Railway and South East Central Railway, with respect to the details furnished vide above reference (iv) and reference (v) respectively, has been computed. The voltages likely to be induced on paralleling Block and Telecom circuits under Single Line to Ground fault conditions are enclosed at Annexure-I (West Central Railway) and Annexure-II (South East Central Railway). The screening factors as applicable have been considered. DG Signals, MoD has issued No Objection Certificate (NOC) vide reference (vi).

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), West Zone	O/o DGM(W), QA & Inspection circle, Ground Floor, A- wing, BSNL Admin Bldg., Juhu Road, Mumbai - 400054	
2.	GM(S&T) WCR	O/o GM(S&T), 1 st Floor, Annex II building P.F. No. 6, Jabalpur	Annexure-I
3.	Dy CSTE/Sig/HQ SECR	O/o Principal Chief Signal & Telecom Engineer, 2 nd Floor, SECR Zonal HQ Building, Bilaspur - 495004	Annexure-II
4.	Chief Engineer (Plg. & Design) MPPTCL, Jabalpur	Block No. 2, Shakti Bhawan, Ramour, Jabalpur - 482008	Copy for information.

ANNEXURE-I

CEA Case No.: MP-551			Map Scale : 1 cm= 500 m		
Name of the Power line PTCC proposal of LILO of both circuits of 220 kV D/C Jabalpur - Narsinghpur Transmission Line at 765 kV S/s Bhedaghat (PGCIL) (Length-7.696 km).			Total Length : 7.696 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.
Western Central Railway: WCR/N-HQ/120 PTCC-T-50-Pt-III Caes-474 Dated 25.06.2025					
<u>Affected Blocks & Telecom Circuits Details</u>					
1.	Bhitoni - Bheraghat	1.1	0.00027	32600	9
2.	Bheraghat – Kachhpura Jn.	1	0.00009	33330	3
3.	Kachhpura Jn. - Garha	0.6	0.000063	31700	2

ANNEXURE-II

CEA Case No.: MP-551			Map Scale : 1 cm= 500 m		
Name of the Power line PTCC proposal of LILO of both circuits of 220 kV D/C Jabalpur - Narsinghpur Transmission Line at 765 kV S/s Bhedaghat (PGCIL) (Length-7.696 km).			Total Length : 7.696 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.
South East Central Railway: SECR/S&T/PTCC/MP/1201 Dated 02.12.2025					
<u>Affected Blocks & Telecom Circuits Details</u>					
1.	Garha - Gwarighat	0.85	0.000095	31400	3

