



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**  
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<b>CEA Case No.: MP-566</b>		
<b>Induced Voltage (IV) calculation for LILO of one circuit of 765 kV D/C Jabalpur-Orai Transmission Line at 765 kV Ishanagar S/s [Length- 17.327 km]– Regd.</b>		
<b>S. No</b>	<b>Reference No.</b>	<b>Dated</b>
(i)	IPTL: IPTL/Projects-TL/2025-26/002	19.09.2025
(ii)	IPTL: e-Mail	27.02.2026
(iii)	BSNL: IC/MBI/PTCC/MP	07.11.2025
(iv)	North Central Railway: NCR/S&T/2074/Telecom/PTCC(Part-2)	15.12.2025
(v)	Defense: B/46937/Sigs7(b)/5177	04.12.2025

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

EPR zone for proposed 765 kV 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
765 kV Ishanagar S/s	431	31.5	0.128	3610	2243	N.A	N.A

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.

Digitally signed by  
 Suman Kumar Maharana  
 Date: 05-03-2026  
 17:28:57

**Chief Engineer**

**To,**

1.	Divisional Engineer (PTCC), Western Zone	QA & Inspection circle, 1 <sup>st</sup> floor, D- wing, BSNL Bldg., Santa Cruz (West), Mumbai-400054	
2.	GM (S&T) North Central Railway	O/o PCSTE, S&T Dept. North Central Railway Ganga Parisar, Prayagraj	
3.	Lead – S.T.L Construction M/s Ishanagar Power Transmission Limited	28A, Ground Floor, Omaxe Square Jasola, New Delhi	Copy for information

**ANNEXURE-I**

<b>CEA Case No.:</b> MP-566			<b>Map Scale</b> : 1 cm= 500 m		
<b>Name of the Power line:</b> LILO of one circuit of 765 kV D/C Jabalpur-Orai Transmission Line at 765 kV Ishanagar S/s			<b>Total Length</b> : 17.327 km		
			<b>S.R. Value</b> : 7500 Ohm-cm		
<b>S.No.</b>	<b>Telecom. Details</b>	<b>Length of Parallelism in Km.</b>	<b>Mutual Coupling in Ohms.</b>	<b>Effective Fault current in Amps.</b>	<b>I.V in Volts.</b>
North Central Railway: NCR/S&T/2074/Telecom/PTCC(Part-2)			Dated 15.12.2025		
<b><u>Affected Blocks &amp; Telecom Circuits Details</u></b>					
1.	Sarkanpur R/s to Khargapur R/s	-Out of Parallelism-			
2.	Khargapur R/s to Ishanagar R/s	12.0	0.0048	28100	134
3	Ishanagar R/s to MCS Chhatarpur R/s	-Out of Parallelism-			