



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. : RAJ-776</b>		
<b>Induced Voltage (IV) calculation for PTCC proposal of LILO of both circuits of 765 kV D/C Jaipur (Phagi)- Gwalior Transmission Line at 765 kV Dausa S/s [Length Ckt-I- 32.233 km &amp; Ckt-II- 33.365 km]– Regd.</b>		
<b>S. No</b>	<b>Reference No.</b>	<b>Dated</b>
(i)	PBDTL: NR-1/Dausa/TLC/169	19.11.2024
(ii)	PBDTL: e-Mail	18.04.2025
(iii)	BSNL: DE/PTCC/NZ/ BSNL-TD/DV-10505/RAJ-1562/2024-25	04.04.2025
(iv)	North Western Railway: SG/158/NWR/PTCC/1015	09.12.2024
(v)	Defense: B/46937/Sigs7(b)/4323 (Received by hand on 17.04.2025)	03.03.2025

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

EPR zone for 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
765/400 kV Dausa S/s	436	44.1	0.00937	N.A	N.A	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 111<sup>th</sup> and 112<sup>th</sup> CLPTCC meeting, necessary instructions for “Deemed Energization approval” shall be specified while issuing RAC.

**Chief Engineer**

**To,**

1.	Divisional Engineer (PTCC), Northern Zone	BSNL, O/o GM (North), QA & Inspection Circle D-Tax Building, Eastern Court, Janpath New Delhi-110001	
2.	GM (S&T) NWR	North Western Railway, Headquarter Office, Room No. 136, First Floor, Near Jawahar Circle, Jaipur - 302017	
3.	POWERGRID Bewar Dausa Transmission Limited	POWERGRID Bewar Dausa Transmission Limited , Dausa, Rajasthan	Copy for information.

**ANNEXURE-I**

<b>CEA Case No.:</b> RAJ-776 <b>Name of the Power line:</b> LILO of both circuits of 765 kV D/C Jaipur (Phagi)- Gwalior Transmission Line at 765 kV Dausa S/s.			<b>Map Scale</b> : 1 cm= 500 m <b>Total Length Ckt-I</b> : 32.233 km <b>Total Length Ckt-II</b> : 33.365 km <b>S.R. Value</b> : 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.
North Western Railway: SG/158/NWR/PTCC/1015			Dated 09.12.2024		
<b><u>Affected Blocks &amp; Telecom Circuits Details</u></b>					
1.	Dausa R/s to Baniyana R/s	Out of Parallelism			
2.	Baniyana R/s to Salempura Arniya Khurd R/s	Out of Parallelism			