

I/28257/2023



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**

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<b>CEA Case No. : RAJ-696</b>		
<b>PTCC approval for 400 kV D/C (Quad) Bikaner (PG) to Bikaner-II(PS) Transmission Line [Length - 32.427 km]-Regd.</b>		
<b>S. No</b>	<b>Reference No.</b>	<b>Dated</b>
(i)	POWERGRID: NR1/400kV/BKN/525	18.03.2023
(ii)	POWERGRID e-mail	08.05.2023
(iii)	BSNL: DET/PTCC/ND/DV-10007/Raj-1351/2023-2024	22.05.2023
(iv)	North Western Railway: SG/158/NWR/PTCC/849	12.10.2021
(v)	Defense: B/46937/Sigs7(b)/2587/	08.12.2021

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 have issued No Objection Certificate (NOC) vide above 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
400/220 kV Bikaner-II S/S	150	18	0.1	478	265	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 Substation.

Taking above into consideration, necessary action regarding issuance of PTCC approval for the subject cited transmission line might be taken under intimation to this office.

Encl.: As above

**Chief Engineer**

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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)	North Western Railway, Headquarter Office, Room No. 136, First Floor, Near Jawahar Circle, Jaipur - 302017	Annexure-I
3.	Executive Director (NR-I), POWERGRID	POWERGRID RHQ, NR-I, Faridabad	Copy information. for

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**ANNEXURE-I**

<b>CEA Case No.:</b> RAJ-696			<b>Map Scale</b> : 1 cm= 500 m		
<b>Name of the Power line:</b> 400 kV D/C (Quad) Bikaner (PG) to Bikaner-II (PS) Transmission Line.			<b>Total Length</b> : 32.427 km		
			<b>S.R. Value</b> : 5,000 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>
<b>North Western Railway: SG/158/NWR/PTCC/849 Dated 12.10.2021</b>					
<b><u>Affected Blocks &amp; Telecom Circuits Details</u></b>					
1.	Lalgarh Jn to Kanasar	Out of IV consideration zone			
2.	Kanasar to Jamsar	0.25	0.0001	17600	2