

I/28300/2023



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

CEA Case No. : RAJ-711		
Induced Voltage (IV) calculation for PTCC proposal of 220 kV SC line from 220/33 kV Jodhpur Pooling Substation of AMP Solar to 765/400 kV Bhadla –II Substation (Length: 11.74 km)- regd		
S. No	Reference No.	Dated
(i)	PTCC/22-23/01	12.01.2023
(ii)	BSNL: DET/PTCC/ND/DV-10203/Raj-1415/2023-2024	29.05.2023
(iii)	North Western Railway: SG/158/NWR/PTCC/908	31.01.2023
(iv)	Defense: B/46937/Sigs7(b)/3182	03.05.2023

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

EPR Zones for proposed substations are mentioned below.

Name of the proposed SS	Half Diagonal Distance, D/2 (mts)	Fault Current, I (kA)	Resistance of earthmat, R (Ohms)	d (mts) at 430 V	d (mts) at 650 V	d (mts) at 7 kV	d (mts) at 10 kV
220/33 kV Jodhpur Pooling Substation	119	24	0.3	1874	1199	3	NA

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

Xen. J. B.
13.6.2023
Director

I/28300/2023 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	
3.	M/s AMP Energy Green Private Limited	309, 3 rd floor, Rectangle One, Behind Sheraton Hotel, Saket, New Delhi – 110 017	

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ANNEXURE-I

CEA Case No.: RAJ-711			Map Scale : 1 cm= 500 m		
Name of the Power line: 220 kV SC line from 220/33 kV Jodhpur Pooling Substation of AMP Solar to 765/400 kV Bhadla –II Substation (Length: 11.74 km)-			Total Length : 11.74 km		
			S.R. Value : 10,000 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/908 Dated 31.01.2023					
<u>Affected Blocks & Telecom Circuits Details</u>					
1.	Bap to Sird	4.7	0.00043	8464	4
2.	Sird to Nokhra	Out of parallelism			