



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-724		
Induced Voltage (IV) calculation for 220 kV D/C Kankroli (PGCIL) to Dariba Transmission Line [Length- 22.455 km]– Regd.		
S. No	Reference No.	Dated
(i)	Serentica Renewable India 4 Pvt. Ltd.: SRIPL4-043-2023-24	28.09.2023
(ii)	BSNL: DET/PTCC/ND/DV-10380/RAJ-1485/2024-2025/	27.09.2024
(iii)	North Western Railway: SG/158/NWR/PTCC/934	25.10.2023
(iv)	Defense: B/46937/Sigs7(b)/3546	23.04.2024

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

Both the end substations i.e 400/220 kV Kankroli GIS and 220 kV Dariba PSS are existing and hence, EPR zone computation is not done.

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

Encl.: As above

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	Annexure-I
2.	GM (S&T) NWR	North Western Railway, Headquarter Office, Room No. 136, First Floor, Near Jawahar Circle, Jaipur – 302017	Annexure-II
3.	Chief Manager-Projects	Serentica Renewable India 4 Pvt. Ltd Udyog Vihar, Gurgaon	

ANNEXURE-I

CEA Case No.: RAJ-724			Map Scale : 1 cm= 500 m		
Name of the Power line: 220 kV D/C Kankroli (PGCIL) to Dariba Transmission Line.			Total Length : 22.455 km		
			S.R. Value : 30000 Ohm-cm		
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.

BSNL: DET/PTCC/ND/DV-10380/Raj-1485/2024-25/ Dated 27.09.2024

Affected Blocks & Telecom Circuits Details

1.	Swadri Chauraha to Baneriya Old Excg.	IV Less than 430 V
2.	Kabra 4 G BTS to Kabra GP	
3.	Sansera 4G BTS to Sansera GP	
4.	Room 4G BTS to Bhana GP	
5.	Chaukri 4G BTS to Chaukri GP	
6.	Pipali Aheeran 4G BTS to Pipali Aheeran GP	
7.	Gogathala 4G BTS to Gogathala GP	
8.	Charana 4G BTS to Charana GP	
9.	Ora 4G BTS to Ora GP	

ANNEXURE-II

CEA Case No.: RAJ-724			Map Scale : 1 cm= 500 m		
Name of the Power line: 220 kV D/C Kankroli (PGCIL) to Dariba Transmission Line.			Total Length : 22.455 km		
			S.R. Value : 30000 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/934 Dated 25.10.2023					
<u>Affected Blocks & Telecom Circuits Details</u>					
1.	Nathdwara R/s to Chabhuja Road	4.0	0.006	22800	137