

I/34196/2024



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

CEA Case No. : HRA-228		
Induced Voltage (IV) calculation for PTCC proposal of 220 kV D/C line from 400 kV Naggal S/s (PGCIL) – 220 kV Pinjore S/s (Length: 21.572 kms) -Regd.		
S. No	Reference No.	Dated
(i)	HVPNL: Ch-31/TSD/CW-91/Vol-I	17.09.2019
(ii)	HVPNL: 32/HVPLG/197	19.12.2023
(iii)	HVPNL: e-mail	27.02.2024
(iv)	BSNL: DET/PTCC/ND/DV-10298/HRA-882/2023-24	16.02.2024
(v)	Northern Railway: 342-SIG/1/PTCC/2023-24/02/02	06.02.2024
(vi)	Defense: B/4693/Sigs7(b)/1845	01.06.2020

The PTCC proposal submitted vide reference (i), (ii) & (iii) has been examined. The LF induction on Block and Telecom circuits of Northern Railway submitted vide reference (v) has been computed. The voltage likely to be induced on paralleling Block and Telecom circuits of Northern 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 reference (iv) & (vi) respectively.

As both the substation are existing, EPR verification is not done.

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

To,

1.	Divisional Engineer (PTCC), Northern Zone	BSNL, O/o PGM(North), QA & Inspection Circle D-Tax Building, Eastern Court, Janpath New Delhi-110001	
2.	GM (S&T)	Northern Railway, Baroda House, New Delhi	Annexure-I
4.	Ex. Engineer (Planning)	HVPNL, Panchkula	Copy for information.

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ANNEXURE-I

CEA Case No.: HRA-228			Map Scale : 1 cm= 500 m		
Name of the Power line: 220 kV D/C Line from 400 kV Naggal (PG) S/S to 220 kV Pinjore S/s			Total Length : 21.572 km		
			S.R. Value : 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.

Northern Railway Letter No.: 342-SIG/1/PTCC/2023-24/02/02 Dated 06.02.2024

Affected Blocks & Telecom Circuits Details

1	Dhapper R/s to Ghaggar R/s	Out of parallelism			
2	Ghaggar R/s to Chandigarh R/s	0.5	0.000045	22223	1
3	Chandigarh R/s to Chandi Mandir R/s	Out of parallelism			
4	Chandigarh R/s to Sahibzada Ajit Singh Nagar R/s	Out of parallelism			