

I/25673/2023



सत्यमेव जयते



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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. : BHR-195		
PTCC approval for 220 kV D/C Powergrid Sasaram (Pusauli) substation – Durgawati TSS (DFCCIL) transmission line (17.249 km) - regd.		
S. No	Reference No.	Dated
(i)	POWERGRID: ER-I/PAT/ENGG/PTCC/SASARAM-DURGAWATI/437	11.05.2022
(ii)	POWERGRID: Email	11.01.2023
(iii)	DFCCIL: Email	11.01.2023
(iv)	BSNL: DE/PTCC/ER/EJH211220224585/2	02.01.2023
(v)	East Central Railway: Computer eFile no. 168514/2186	16.08.2022
(vi)	Defense: B/46937/Sigs 7(b)/2878	10.10.2022

The PTCC proposal submitted vide reference (i) & (ii) has been examined. Vide reference (iv) above, BSNL has submitted joint survey report mentioning “no parallel telecom circuit found”. The LF induction on communication circuits of East Central Railway with respect to details furnished vide above reference (v) have been computed. The voltage likely to be induced on paralleling communication circuits of East Central Railway under Single Line to Ground fault condition are enclosed at Annexure-I. The screening factors as applicable have been considered. Vide reference (vi) above, DG Signals, MoD has issued No Objection Certificate (NOC) (enclosed as Annexure-II).

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
Durgawati TSS	109	40	0.03	195.18	92.23	NIL	NIL

As per the Telecom Details submitted by BSNL vide above reference (iv), No Telephone exchange of BSNL is coming in the EPR zone of proposed 220 kV Durgawati substation.

Taking above into consideration, necessary action for issuance of PTCC route approval may be taken under intimation to this office.

Encl.: As above

Chief Engineer

To,

1.	Divisional Engineer (PTCC), Eastern Zone	BSNL O/o DET(PTCC), Eastern Zone, QA & Inspection Circle, Q.A Bhawan, EP-GP Block, Sector-V, Salt lake, Kolkata-700091.	
2.	GM(S&T)	East Central Railway, Office of the General Manager (S&T), Hajipur - 844118	
3.	Sr. General Manager	POWERGRID, ER-I RHQ, Board Colony, Shastri Nagar, Patna - 800023	For kind information

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ANNEXURE-I

CEA Case No.: BHR-195 Name of the Power line: 220 kV D/C Powergrid Sasaram (Pusauli) substation – Durgawati TSS (DFCCIL) transmission line			Map Scale : 1 cm= 500 m Total Length : 17.249 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.
EAST CENTRAL RAILWAY: Computer eFile no. 168514/2186 Date: 16.08.2022					
	Affected block & telecom circuits				
1	Karmnasa - Durgawati	Out of parallelism			0
2	Durgawati – Bhabhua Road	4.15	0.0193	21088	407
3	Bhabhua Road - Muthani	6.2	0.0084	14048	118
4	Muthani - Pusauli	5.1	0.0052	16538	86
5	Pusauli - Kudra	Out of parallelism			0