



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. : J&K-60		
Induced Voltage (IV) Calculation for PTCC proposal of 400 kV S/C (Quad) Kishenpur – Kishtewar Transmisison line on S/C and D/C towers by utilizing portion of existing 400 kV (S/C on D/C towers) Kishenpur- Dulhasti Transmission line (Length: 5.344 kms).		
S. No	Reference No.	Dated
(i)	N2BT/KKTL/PTCC/2024/46	08.12.2024
(ii)	BSNL: DE/PTCC/NZ/BSNL-TD/DV-10447/JK-235/2024-25	06.01.2025
(iii)	Northern Railway: 342-SIG/1/PTCC/2024-25/11/01	26.11.2024
(iv)	Defense: B/46937/Sigs 7(b)/4128	06.11.2024

The PTCC proposal submitted vide reference (i) has been examined. The LF induction on communication circuits of Northern Railway with respect to details furnished vide above reference (iii) has been computed. The voltages likely to be induced on paralleling communication cables 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 vide reference (ii) and DG Signals, MoD vide reference (iv) has given their NOC for charging the line.

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
400 kV Kishtewar Switching Station	107.06	50	0.11	1262	799	NA	NA

Taking above into consideration, necessary action for issuance of PTCC route approval (RAC) shall be taken under intimation to this office in the stipulated period as specified in PTCC Manual and subsequent CLPTCC meetings.

As per the decision taken in 111th and 112th CLPTCC meeting, necessary instructions for “Deemed Energization approval” shall be specified while issuing RAC.

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	Headquarter Office, Baroda House, New Delhi
3.	Chief Manager (TL), POWERGRID	Behind Hotel Hill View, Batote, UT of J&K – 182 143

ANNEXURE-I

CEA Case No.: J&K-60 Name of the Power line: 400 kV S/C (Quad) Kishenpur – Kishtewar Transmisison line on S/C and D/C towers by utilizing portion of existing 400 kV (S/C on D/C towers) Kishenpur- Dulhasti Transmission line			Map Scale : 1 cm= 500 m Total Length : 5.344 km S.R. Value : 7500 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: 342-SIG/1/PTCC/2024-25/11/01 Date: 26.11.2024					
1.	Sangar R/S to Manwal R/S	0.3	0.00006	27565	~2
2.	Manwal R/S to Ramnagar J&K R/S	0.95	0.00288	27431	79