



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.: RAJ- 895		
Induced Voltage (IV) calculation for 220 kV S/C Transmission Line on M/c & D/C towers from 220 kV PSS of 250 MW NHPC Solar Project at Khodal to Fatehgarh-III PGCIL S/s [Length- 13.756 km]– Regd.		
S. No	Reference No.	Dated
(i)	Ref: NHPC/24-25/016	07.07.2025
(ii)	BSNL: DE/PTCC/NZ/ BSNL-TD/DV-10680/RAJ-1690/2025-26/	04.02.2026
(iii)	North Western Railway: SG/158/NWR/PTCC/1190	12.09.2025
(iv)	Defense: B/46937/Sigs7(b)/5041	04.11.2025

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

EPR zone for proposed S/S is mentioned below:

Name of the proposed Substation	Half diagonal distance, D/2 (mts)	Fault Current I (KA)	Resistance of Earth Mat, R (ohms)	d (mts) at 430 V	d (mts) at 650 V	d (mts) at 7kV	d (mts) at 10kV
220 kV PSS	94	35	0.225	1628	1045	12	NA

As per the Telecom Details submitted by BSNL vide above reference (iii) there is no Telephone Exchange lying within the EPR zone of 220 kV S/s.

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.

Digitally signed by
Suman Kumar Maharana
Date: 19-02-2026
11:20:02
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	
2.	Project Manager-Khaba Renewable Energy Private Limited	Vatika Tower, Golf Course Road Sector -54, Haryana	Copy for information.

ANNEXURE-I

CEA Case No.: RAJ-895			Map Scale : 1 cm= 500 m		
Name of the Power line: 220 kV S/C Transmission Line on M/c & D/C towers from 220 kV PSS of 250 MW NHPC Solar Project at Khodal to Fatehgarh-III PGCIL S/s.			Total Length : 13.756 km		
			S.R. Value : 15000 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: DE/PTCC/NZ/ BSNL-TD/DV-10680/RAJ-1690/2025-26/			Dated 04.02.2026		
<u>Affected Blocks & Telecom Circuits Details</u>					
1.	Sonsad to Moani Loni Rd OFC				IV Less than 430 V