



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. : UP-683		
Induced Voltage (IV) calculation for PTCC proposal of 220 kV S/C Transmission Line from Sector-45 Noida S/s to Sector-132 SKVR Software Solution Pvt Ltd. S/s [Length- 7.073 km, O/H- 6.223 km & U/G- 0.850 km] - Regd.		
S. No	Reference No.	Dated
(i)	UPPTCL: 1670/ETD-I/Noida	29.09.2025
(ii)	BSNL: DE/PTCC/NZ/ BSNL-TD/DV-10684/UP-1261/2025-26	11.02.2026
(iii)	Northern Railway: 342-SIG/1/PTCC/2025-26/11/02	13.11.2025
(iv)	Defense: B/46937/Sigs7(b)/5366	29.12.2025

The PTCC proposal submitted vide reference (i) has been examined. The LF induction on telecom circuits of BSNL and block & telecom circuits of Northern Railway with respect to details furnished vide above references (ii) & (iii) has been computed. The voltages likely to be induced on paralleling telecom circuits of BSNL and block & telecom circuits of Northern 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 have issued No Objection Certificate (NOC) vide reference (iv).

EPR zone for 220 kV 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 SKVR Software Solution Pvt Ltd. S/s	40	28	0.194	465	294	N.A	N.A

As per the Telecom Details submitted by BSNL vide above reference (ii), no telephone exchange of BSNL is falling within the EPR zone of proposed Substation.

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.

Digitally signed by
Suman Kumar Maharana
Date: 13-02-2026
14:23:40
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, Delhi	
3.	Executive Engineer UPPTCL	ETD – UPPTCL, 220 kV S/s Sec-20, Noida	Copy for information.

ANNEXURE-I

CEA Case No.: UP-683 Name of the Power line: 220 kV S/C Transmission Line from Sector-45 Noida S/s to Sector-132 SKVR Software Solution Pvt Ltd. S/s			Map Scale : 1 cm= 500 m Total Length : 7.073 km (O/H- 6.223 km & U/G- 0.850 km) S.R. Value : 5000 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-10684/UP-1261/2025-26 Dated 11.02.2026					
<u>Affected Telecom Circuits Details</u>					
1	Sector-39 to Sector-51				
2	Sector-39 to Sector-41				
3	Sector-39 to Chalera				
4	Sector-39 to Sadarpur				
5	Sector-39 to Sector-37				
6	Sector-29 Ganga to Shopping complex				
7	Sector-29 to Park View				
8	Sector-29 to Sector 30				
9	Sector-29 to In Front Of DPS				
10	Sector-29 to Near Nithari Chaw				
11	Sector-29 to Sector-28 Near DP				
12	Sector-29 Sector 28 Near Metro Line				
13	Sector-29 to Sector-28				
14	NEPZ to Maingate				
15	NEPZ Nagla Charan Das				
16	NEPZ to Sector-80				
17	NEPZ to NEPZ				
18	NEPZ to NEPZ				
19	Maharishi Nagar to Bhangel				
20	Maharishi Nagar to Sector-105				
21	Maharishi Nagar to Kendriya Vihar				
22	Maharishi Nagar to Kendriya Vihar				
23	Maharishi Nagar to Vivek Vihar				
24	Maharishi Nagar to Vivek Vihar				
25	Maharishi Nagar to Vivek Vihar				
26	Hosiery Complex to Sector-88				
27	Hosiery Complex to Hosiery Complex				
28	Sector 93 to Silver City				
29	Sector 93 to Sector-92				
30	Sector 93 Sector-93				
31	Sector 93 to ATS				
32	Sector 93 to Supertech				
33	Sector-51 to Sector 50				

IV Less than 430 V

ANNEXURE-II

CEA Case No.: UP-683 Name of the Power line: 220 kV S/C Transmission Line from Sector-45 Noida S/s to Sector-132 SKVR Software Solution Pvt Ltd. S/s			Map Scale : 1 cm= 500 m Total Length : 7.073 km (O/H- 6.223 km & U/G- 0.850 km) S.R. Value : 5000 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/2025-26/11/02

Dated 13.11.2025

Affected Blocks & Telecom Circuits Details

1	Hazrat Nizamuddin R/s to Okhla R/s	-Out of IV Consideration Zone-
2	Okhla R/s to Tughlakabad R/s	-Out of IV Consideration Zone-
3	Tughlakabad R/s to Faridabad R/s	-Out of IV Consideration Zone-