

I/31325/2023



सत्यमेव जयते



**भारत सरकार**  
**Government of India**  
**विद्युत मंत्रालय**  
**Ministry of Power**  
**केन्द्रीय विद्युत प्राधिकरण**  
**Central Electricity Authority**  
**विद्युत संचार विकास प्रभाग**  
**Power Communication Development Division**

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<b>CEA Case No.: HRA-250</b>		
<b>Induced Voltage (IV) calculation for PTCC proposal of LILO of 2<sup>nd</sup> circuit of 220 kV D/C DCRTTP-Abdullapur Transmission Line at 220 kV Rampur Kamboyan S/s [Length- 19.683 km]- Regd.</b>		
<b>Reference:</b>		
<b>S. No.</b>	<b>Reference No.</b>	<b>Dated</b>
(i)	HVPNL: 203/SS-21	22.07.2023
(ii)	HVPNL: 210/SS-21	22.09.2023
(iii)	BSNL: DET/PTCC/ND/DV-10217/HR-878/2023-2024/	29.09.2023
(iv)	Northern Railway : 342-SG/1/PTCC/2023-24/06/07	27.06.2023
(v)	Defense : B/46937/Sigs 7(b)/3412	25.08.2023

The PTCC proposal submitted vide reference (i) & (ii) has been examined. The LF induction on Block and Telecom circuits of BSNL and Northern Railway with respect to details furnished vide above reference (iii) & (iv) respectively, has been computed. The voltage likely to be induced on paralleling Block and Telecom circuits of BSNL and 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 has issued No Objection Certificate (NOC) vide reference (v).

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.

**Director**

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To,

1.	Divisional Engineer (PTCC), Northern Zone	BSNL O/o PGM (N), QA & Inspection Circle, D- Tax Building, Eastern Court, Janpath, New Delhi	
2.	GM (S&T)	Northern Railway, Baroda House New Delhi	
3.	Executive Engineer/TS HVPNL	O/o Executive Engineer HVPNL, Yamuna Nagar	Copy for information

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ANNEXURE-I

CEA Case No.: HRA-250			Map Scale : 1 cm= 500 m		
Name of the Power line: LILO of 2 <sup>nd</sup> circuit of 220 kV D/C DCRTTP- Abdullapur Transmission Line at 220 kV Rampur Kamboyan S/s.			Total Length : 19.683 km		
			S.R. Value : 20000 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 Letter No: DET/PTCC/ND/DV-10217/HR-878/2023-2024/ Date: 29.09.2023					
<u>Affected Blocks &amp; Telecom Circuits Details</u>					
1	Main Exchange CCU to Bus Stand, 800 Pair				
2	Main Exchange CCU to Bus Stand, 400 Pair				
3	Main Exchange CCU to Bus Stand, 200 Pair				
4	Main Exchange CCU to Police Station, 800 Pair				
5	Main Exchange CCU to Police Station, 200 Pair				
6	Bus Stand to Trikoni Anaj Mandi, 400 Pair				
7	Trikoni Anaj Mandi to Pown House , 50 Pair				
8	Trikoni Anaj Mandi to Shapur Road , 200 Pair				
9	Bus Stand to Govt. School, 600 Pair				
10	Govt. School CCU to Leda Khas, 50 Pair				
11	Govt. School to Ganauli Village, 200 Pair				
12	Village Ganauli to Village Chhauri, 100 Pair				
13	Village Chhauri to Vill Baxintpura, 50 Pair	2.0	0.0256	15200	389
14	Police Station CCU to Post Office CCU, 200 Pair				
15	Post Office CCU to Chowk No. 1, 200 Pair				
16	Chowk No. III to Ganuali Gate CCU, 200 Pair				
17	Shiv Chowk Bilaspur to Pguwaala, 50 Pair				
18	Shiv Chowk Bilaspur to Chand Kui, 200 Pair				
19	Shiv Chowk Bilaspur to Kotuwani, 200 Pair				
20	Shiv Chowk Bilaspur to Kapal Mohan, 2x100 pair				
21	Bilaspur to Chahurahi, 100 Pair				
22	Bilaspur to Dariyapur 100 Pair				

IV Less than 430 V

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23	Main Exchange Yamunanagar to ESI Hospitals, 800 Pair
24	ESI Hospital to Sec-15, 400 Pair
25	Goyal Hospital to Agrsen Chowk, 400 Pair
26	Main Exch. Yamunanagar to Taili, 200 Pair
27	Main Exch. Yamunanagar to Sec-17, 800 Pair
28	Main Exch. Yamunanagar to Sec-17, 800 Pair
29	Main Exch. Yamunanagar to Sec-17 Jag, 800 Pair
30	Main Exch. Yamunanagar to Goyal Hospital Jag, 800 Pair
31	Main Exch. Yamunanagar to Hindu Girls School Jag, 800 Pair
32	RLU Jagadhari to Gulabnagon, 3x200 Pair
33	RLU Jagadhari to Agrasen Chowk, 800 Pair
34	RLU Jagadhari to Chowk Bazaar, 1200 Pair
35	RLU Jagadhari to Chowk Bazaar, 800x2 Pair
36	Chowk Bazaar to Prakash Metals, 800 Pair
37	Chowk Bazaar to Prakash Metals, 800 Pair
38	RLU Jagadhari to Sec-18 Jag, 800 Pair
39	RLU Jagadhari to Sec-18 Jag, 200 Pair
40	RLU Jagadhari to Sec-18 Jag, 100 Pair
41	Chowk Bazaar to Pansari Bazar, 800 Pair
42	Pansari Bazaar to UCO Bank Jag, 400 Pair
43	RLU Jag to Bilaspur Nakka, 200x4 Pair
44	Bilaspur Nakka to Police Jag, 100 Pair

IV Less than 430 V

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ANNEXURE-II

CEA Case No.: HRA-250		Map Scale : 1 cm= 500 m			
Name of the Power line: LILO of 2 <sup>nd</sup> circuit of 220 kV D/C DCRTTP- Abdullapur Transmission Line at 220 kV Rampur Kamboyan S/s.		Total Length : 19.683 km			
		S.R. Value : 20000 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-SG/1/PTCC/2023-24/06/07 Date: 27.06.2023

Affected Blocks & Telecom Circuits DetailsAmbala Cant.- Saharanpur Section

1	Darazpur R/s to Jagadhari Workshop R/s	-Out of Parallelism-
2	Jagadhari Workshop R/s to Yamuna Nagar Jagadhari R/s	
3	Yamuna Nagar Jagadhari R/s to Kalanaur R/s	
4	Kalanaur R/s to Saraswa R/s	