



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. : DL-32		
Induced Voltage (IV) calculation for PTCC proposal of 220 kV 1x1200 sq.mm UG XLPE cable from 220 kV Lodhi Road S/s to 220 kV Park street S/s.[Length- 9 km]-Regd		
S. No	Reference No.	Dated
(i)	DTL: F.DTL/2012/Manager (T) PII-A2/22-23/Opr.(Proj)/F-23/181	16.01.2023
(ii)	DTL: F.DTL/2010/Manager (T) PII-A2/24-25/Opr.(Proj)/F-14/23	19.06.2024
(iii)	DTL: e-mail	09.09.2024
(iv)	BSNL: DET/PTCC/ND/DV-10205/ND-239/2024-25/	16.07.2024
(v)	Northern Railway: 342-SIG/1/PTCC/2023-24/10/01	17.10.2023
(vi)	DMRC: DMRC/S&T/Tele/PTCC/MISC/DTL/Parkstreet/01	08.08.2024
(vii)	Defense: B/46937/Sigs7(b)/3551/	14.11.2023

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

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

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	Annexure-I
2.	GM (S&T)	Northern Railway, HQ's Office, Baroda House, New Delhi	Annexure-II
3.	Joint General Manager- Telecom, DMRC	O/o S&T - DMRC, 5 th Floor NBCC Place, Pragati Vihar Lodhi Road, New Delhi	Annexure-III
4.	Sr. Manager (T), Projects-II-A2	DTL, Room No. R-5, Shaktideep Bldg., Jhandewalan Extn., New Delhi – 110 002	For information

ANNEXURE-I

CEA Case No.: DL-32			Map Scale : 1 cm= 500 m		
Name of the Power line: 220 kV 1x1200 sq.mm UG XLPE cable from 220 kV Lodhi Road S/s to 220 kV Park street S/s.			Total Length : 9 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 Letter No: DET/PTCC/ND/DV-10205/ND-239/2024-25/ Dated 16.07.2024					
<u>Affected Blocks & Telecom Circuits Details</u>					
1	Lodhi Road to Rajesh Pilot Marg, PIJF Cable	IV Less than 430 V			
2	Jan path Roundabout to Prithvi Raj & Rajesh Pilot Marg, PIJF Cable	1.5	0.0048	23600	113
3	Talkatora Road to Pt Pant Marg, PIJF Cable	IV Less than 430 V			
4	Mahadev Road to Pt Pant Marg, PIJF Cable				
5	Ashoka Road to Janpath, PIJF Cable				
6	Janpath to Firoz Shah Road, PIJF Cable				
7	Janpath to Le-meridian Hotel, PIJF Cable				
8	Janpath to Janpath Round about, PIJF Cable				

ANNEXURE-II

CEA Case No.: DL-32			Map Scale : 1 cm= 500 m		
Name of the Power line: 220 kV 1x1200 sq.mm UG XLPE cable from 220 kV Lodhi Road S/s to 220 kV Park street S/s.			Total Length : 9 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 Letter No: 342-SIG/1/PTCC/2021-22/10/01 Dated 17.10.2023

Affected Blocks & Telecom Circuits Details

1	Delhi R/s to Sadar Bazar R/s	-Out of Parallelism-			
2	Sadar Bazar R/s to Delhi Sarai Rohilla R/s	-Out of Parallelism-			
3	Delhi Sarai Rohilla R/s to Patel Nagar R/s	-Out of Parallelism-			
4	Delhi Jn R/s to Subzi Mandi R/s	1.2	0.00017	29600	5
5	Subzi Mandi R/s to Delhi Azadpur R/s	1.4	0.00017	18000	3
6	Delhi R/s to Delhi Shahdara R/s	-Out of Parallelism-			
7	Hazrat Nizammudin R/s to Anand Vihar R/s	-Out of Parallelism-			
8	Tughlakabad R/s to Okhla R/s	-Out of Parallelism-			
9	Okhla R/s to Hazrat Nizammudin R/s	-Out of Parallelism-			
10	Hazrat Nizammudin R/s to Pragati Maidan R/s	-Out of Parallelism-			
11	Pragati Maidan R/s to Tilak Bridge R/s	-Out of Parallelism-			
12	Tilak Bridge R/s to Shivaji Bridge R/s	-Out of Parallelism-			
13	Shivaji Bridge R/s to New Delhi R/s	-Out of Parallelism-			
14	New Delhi R/s to Sadar Bazaar R/s	-Out of Parallelism-			
15	Sadar Bazaar R/s to Delhi R/s	-Out of Parallelism-			
16	Delhi R/s to Kishenganj R/s	-Out of Parallelism-			
17	Kishenganj R/s to Daya Basti R/s	-Out of Parallelism-			
18	Daya Basti R/s to Sakubasti R/s	-Out of Parallelism-			
19	Hazrat Nizammudin R/s to Delhi Safadarjung R/s	-Out of Parallelism-			
20	Delhi Safadarjung R/s to Brar Square R/s	-Out of Parallelism-			
21	Brar Square R/s to Patel Nagar R/s	-Out of Parallelism-			
22	Patel Nagar R/s to Shakurbasti R/s	-Out of Parallelism-			

ANNEXURE-III

CEA Case No.: DL-32			Map Scale : 1 cm= 500 m		
Name of the Power line: 220 kV 1x1200 sq.mm UG XLPE cable from 220 kV Lodhi Road S/s to 220 kV Park street S/s.			Total Length : 9 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.
DMRC Letter No: DMRC/S&T/Tele/PTCC/MISC/DTL/Parkstreet/01 Dated 08.08.2024					
<u>Affected Blocks & Telecom Circuits Details</u>					
1	New Delhi Metro Station to Green Park Metro Station.	6.0	0.0007	14500	10
2	Kashmiri Gate Metro Station to Jungpura Metro Station.	5.5	0.0012	14200	17
3	Shivaji Stadium Metro Station to Dhaula kuan Metro Station.	2.5	0.0004	13800	06