



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

CEA Case No.: BHR-152

PTCC proposal for LILO of 220 KV D/C Sipara to Bihta (BSPTCL) transmission line at Jakkanpur ( New) S/S: 22.531 km

## Reference:

S. No.	Reference No.	Dated
(i)	Bihar Grid Company Ltd. : BG/IV/PAT/TW-01/PTCC/1295 (and details received via mail on 21.02.2022)	29.01.2019
(ii)	BSNL: DE/PTCC/ER/EBR243720192523-529/01	13.03.2020
(iii)	East Central Railway: ECR/S&T/PTCC/134, Pt. III/65	08.04.2019
(iv)	Defense: B/46937/ Sigs 7(b)/1743	11.09.2019

The PTCC proposal submitted vide reference (i) has been examined. The low frequency induction on telecom cables of BSNL and Block & Telecom circuits of East Central Railway with respect to details furnished vide above references (ii) and (iii) respectively has been computed. The voltages likely to be induced on paralleling telecom cables of BSNL and Block & Telecom circuits of East Central Railway under Single Line to Ground fault condition are enclosed at Annexure-I and Annexure-II respectively. The screening factors, as applicable, have been considered. Vide above reference (iv), Defence Authority have issued No Objection Certificate (NOC) (a copy enclosed as Annexure-III).

Taking above into consideration, necessary action for issuance of PTCC route approval may be taken.

**Encl.:** As above.

*Raghuwendra Pratap Singh*  
22.2.22

Director

To,

1.	DET (PTCC), Eastern Zone	BSNL; QA & Inspection Circle, Q.A. Bhawan, EP-GP Block, Sector-V, Salt Lake, Kolkata-700091.	Annexure-I & Annexure-III
2.	Dy. CSTE/HQ	East Central Railway; O/o General Manager (S&T), East Central Railway, Hajipur, District- Vaishali-844101.	Annexure-II
3.	Sr. General Manager (Projects)	Bihar Grid Company Ltd.; 2nd Floor, Alankar Place, Boring Road, Patna-800001.	Copy for information

File No.CEA-PS-17-11(13)/5/2022-PCD Division /196-198



75  
आज़ादी का  
अमृत महोत्सव

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

\*\*\*\*\*

के.वि.प्रा. केस सं.: BHR-152
पी.टी.सी.सी. प्रस्ताव LILO of 220 KV D/C S'para to Bilta (BSPTCL) transmission line at Jakkampur ( New) S/S: 22.531 km

क्रमांक	सन्दर्भ सं.	दिनांक
(i)	Bihar Grid Company Ltd. : BG/JV/PAT/TW-01/PTCC/1295 (एवं 21.02.2022 को मेल द्वारा प्राप्त विवरण)	29.01.2019
(ii)	BSNL: DE/PTCC/ER/EBR2407201/8523-529/01	13.03.2020
(iii)	East Central Railway ECR/S&T/PTCC/134, Pt. III/65	08.04.2019
(iv)	Defense: B/46937/ Sigs 7(b)/1743	11.09.2019

संदर्भ (i) द्वारा प्रस्तुत पीटीसीसी प्रस्ताव की जांच की गई है। उपर्युक्त संदर्भ (ii) और (iii) में दिए गए विवरणों के संबंध में बीएसएनएल के दूरसंचार केबलों और पूर्व मध्य रेलवे के ब्लॉक और दूरसंचार सर्किटों पर क्रमशः कम आवृत्ति प्रेरण की गणना की गई है। सिंगल लाइन टू ग्राउंड फॉल्ट की स्थिति के तहत बीएसएनएल और पूर्व मध्य रेलवे के ब्लॉक और टेलीकॉम सर्किट के समानांतर दूरसंचार केबलों पर प्रेरित होने की संभावना वाले वोल्टेज क्रमशः अनुलग्नक- I और अनुलग्नक- II में संलग्न हैं। स्क्रीनिंग कारकों पर विचार कर लिया गया है। उपरोक्त संदर्भ (iv) द्वारा, रक्षा प्राधिकरण ने अनापति प्रमाण पत्र (एनओसी) जारी किया है। (एक प्रति अनुलग्नक-III के रूप में संलग्न है)

उपरोक्त को ध्यान में रखते हुए, पीटीसीसी मार्ग अनुमोदन जारी करने के लिए आवश्यक कार्रवाई की जाए।

संलग्न: ऊपरोक्त अनुसार

राजबंद प्राप्त 11/5  
22.2.22  
निदेशक

To,

1.	DET (PTCC), Eastern Zone	BSNL; QA & Inspection Circle, Q.A. Bhawan, EP-GP Block, Sector-V, Salt Lake, Kolkata-700091.	अनुलग्नक- I & अनुलग्नक- III
2.	Dy. CSTE/HQ	East Central Railway; O/o General Manager (S&T), East Central Railway, Hajipur, District- Vaishali-844101.	अनुलग्नक- II
3.	Sr. General Manager (Projects)	Bihar Grid Company Ltd.; 2nd Floor, Alankar Place, Boring Road, Patna-800001.	जानकारी हेतु

MIC

CEA: BHR-152

(Annexure-I)

Particulars details of parallel Telecom alignment proforma							
Case no. EBR240720192528				Map scale : 1" = 1 Mile / 1 cm. = 500Mts.			
Name of the power line : LILO of 220 KV D/G Sipara(BSPCL)-Bilite (BSPCL) line at Jakkanpur (new).				Total length :- 22.531 Km			
				Average S.R. value : 15,000.00 cm			
Sl.no.	Telecom circuits	Marked as	Length of parallelism in km	Mutual coupling in Ohms	Effective fault current in Amp.	I.V. in Volts	Safe separation in Yards
1	2	3	4	5	6	7	8
1	SAMPAT CHAK EXCHANGE	A					
a	SAMPAT CHAK EXCHANGE TO BARIYA (200 pr.U/G Cable, dist. 3 km)	1					
	SAMPAT CHAK EXCHANGE TO BLOCK (50 pr.U/G Cable, dist. 1 km)	2					
	SAMPAT CHAK EXCHANGE TO SUHAGI MORE (200 pr.U/G Cable, dist. 1.5 km)	3					
2	BELDARICHAK EXCHANGE	B					
a	BELDARICHAK EXCHANGE TO KANSARI VILLAGE (50 pr.U/G Cable, dist. 1.5 km)	1					
b	BELDARICHAK EXCHANGE TO ABGILA VILLAGE (50 pr.U/G Cable, dist. 5 km)	2					
	BELDARICHAK EXCHANGE TO DEVKULI (100 pr.U/G Cable, dist. 2.5 km)	3					
	DEVKULI TO BIR BAZAR (50 pr.U/G Cable, dist. 2 km)	4					
e	BIR BAZAR TO DEVDAHO (20 pr.U/G Cable, dist. 2 km)	5					
f	BELDARICHAK EXCHANGE TO BALUA CHAK (100 pr.U/G Cable, dist. 1.5 km)	6					
g	BALUA CHAK TO LAKNA BAZAR (50 pr.U/G Cable, dist. 3 km)	7					
h	BELDARICHAK EXCHANGE TO SAIDANPUR (50 pr.U/G Cable, dist. 6 km)	8					
3	PUNPUN EXCHANGE	C					
	PUNPUN XGE TO PUNPUN BANDH ( 200 pr.U/G cable, dist. 1.5 km)	1					
	PUNPUN XGE TO PUNPUN STATION ( 200 pr.U/G cable, dist. 1 km)	2					
	PUNPUN XGE TO MANOHARA VILLAGE ( 100 pr.U/G cable, dist. 1.5 km)	3					
d	PUNPUN XGE TO RASIL CHAK ( 100 pr.U/G cable, dist. 2 km)	4					
e	STATION TO DUMRI ( 100 pr.U/G cable, dist. 2.5 km)	5					
	PUNPUN XGE TO SHIV NAGAR BUS STAND ( 100 pr.U/G cable, dist. 1.5 km)	6					
g	PUNPUN XGE TO MAIN PILLAR ( 200 pr.U/G cable, dist. 0.05km)	7					
	MAIN PILLAR TO PAKARI ( 50 pr.U/G cable, dist. 0.300km)	8					
	MAIN PILLAR TO COLLEGE ( 100 pr.U/G cable, dist. 1.5 km)	9					
	MAIN PILLAR TO PUNPUN BLOCK ( 20 pr.U/G cable, dist. 0.200 km)	10					
	COLLEGE TO SRIPALPUR VILLAGE ( 50 pr.U/G cable, dist. 2 km)	11					
	COLLEGE TO LAKANPAR ( 50 pr.U/G cable, dist. 2 km)	12					


IV less than 430V

(1/2)

Signature  
 Director-II / Asstt. Director-II  
 C.E.A.  
 Ministry of Power  
 Govt. of India

Sl. no.	Telecom circuits	Marked as	Length of parallelism in km	Mutual coupling in Ohms	Effective fault current in Amp.	I.V. in Volts	Safe separation in Yards
1	2	3	4	5	6	7	8
4	SONMAI EXCHANGE	D					
	SONMAI XGE TO SONMAI BAZAR ( 50 pair U/G cable, dist.0.2km)	1					
	SONMAI XGE TO SONMAI GRID ( 200 pair U/G cable, dist.0.2 km)	2					
	SONMAI GRID TO MAI VILLAGE ( 20 pair U/G cable, dist.0.3 km)	3					
	SONMAI XGE TO SONMAI SBI BANK ( 10 pair U/G cable, dist.0.1km)	4					
5	DHANARUA EXCHANGE	E					
	DHANARUA XGE TO MAIN ROAD ( 700 pair U/G cable, dist.0.2 km)	1					
	MAIN ROAD TO JALALPUR ( 10 pair U/G cable, dist.1.2 km)	2					
	JALALPUR TO PNB DHANARUA ( 100 pair U/G cable, dist.1 km)	3					
6	SIMRA EXCHANGE	F					
	SIMRA XGE TO SIMRA VILAGE ( 20 pair U/G cable, dist.0.2 km)	1					
	SIMRA XGE TO SIMRA VILAGE ( 20 pair U/G cable, dist.0.2 km)	2					
	SIMRA XGE TO PARSA BAZAR ( 200 pair U/G cable, dist.1.5 km)	3					
	PARSA BAZAR TO PIPRA ( 50 pair U/G cable, dist.1 km)	4					
	PARSA BAZAR TO KURTHAUL ( 50 pair U/G cable, dist.1 km)	5					

IV less than 430V

  
 J. K. JAISWAL  
 Joint Director  
 Radio Engg. Department/C.E.A.  
 Govt. of India  
 New Delhi-00

(2/2)

**ANNEXURE - II**

<b>CEA Case No.: BHR-152</b> <b>Name of the Power line: LILO of 220 KV D/C Sipara to Bihta (BSPTCL) transmission line at Jakkanpur (New) S/S.</b>		<b>Map Scale : 1 cm=500 m</b> <b>Total Length : 22.531 km</b> <b>S.R. Value : 15,000 ohm-cm</b>			
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.

East Central Railway: ECR/S&T/PTCC/134, Pt. III/65			Dated : 08.04.2019		
<b><u>Affected Telecom Circuits Details</u></b>					
1	Parsa Bazar to Punpun	Out of Parallelism			00
2	Punpun to Pothahi	3.1	0.0028	9789	28
3	Pothahi to Nadwan	4.7	0.0017	9890	17
4	Nadwan to Taregna	Out of Parallelism			00



JANY / JANYU  
 जयंत प्रसाद-1/Asstt. Director-I  
 के.सी. प्रसाद विभाग/O.E.A.  
 Dept. of Power, Ministry of Power  
 100, 2nd Fl., Govt. of India  
 110 002, New Delhi-11

Tele : 23019746

(Annexure-III)

BHR-152  
Directorate General of Signals  
Signals 7  
General Staff Branch  
Integrated HQ of MoD, (Army)  
DHQ PO, New Delhi - 110011


B/46937/Sigs 7(b)/1743/

11 Sep 2019

Sr. GM  
Bihar Grid Company Limited  
2<sup>nd</sup> Floor, Alankar Place, Boring Road,  
Patna-800 001

**PTCC PROPOSAL OF CONSTRUCTING A LILO OF 220KV D/C SIPARA (BSPTCL)-BIHTA  
(BSPTCL) TRANSMISSION LINE AT 400KV GIS JAKKANPUR S/S (NEW) FOR  
STRENGTHENING OF TRANSMISSION SYSTEM OF BIHAR UNDER PHASE-I, PART-2**

1. Ref your letter No JV/PT/BG/TW-01/S-B/1986 dt 16 Jul 2019. (copy att).
2. No Objection Certificate (NOC) is accorded based on inputs provided vide Map sheet received under your letter mentioned above.
3. Documents alongwith map sheets (in original) are returned herewith for your further necessary action.

  
(A Rawat)  
Maj  
GSO 1 (Comn)  
for SO-in-C

**Enclosures** : (As above)

**Copy to :-**

The Director (PTCC), CEA  
Power Communication Development Division  
NRPC Complex, 18-A Shaheed Jeet Singh Marg  
Katwaria Sarai, New Delhi - 110016

Divisional Engineer Telegraph (PTCC)  
O/o GM (North); BSNL, QA & Inspection Circle,  
CTS Compound, Africa Avenue Road,  
Netaji Nagar, New Delhi-110023

} for information