



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-159 / 272-274
पी.टी.सी.सी. प्रस्ताव LILO of 220 kV S/C Khagaul (BSPTCL) to Sipara (BSPTCL) at Jakkanpur (New): 24.611 km

सन्दर्भ:		
क्रमांक	सन्दर्भ सं.	दिनांक
(i)	Bihar Grid Company Ltd. : JV/PT/TW-01/PTCC/K-S/2077	06.08.2019
(ii)	BSNL: DE/PTCC/ER/EBR240720192523-529/01	13.03.2020
(iii)	East Central Railway: ECR-HQ0SnT(CPTC)/1/2020-O/o Dy.CSTE/HQ/ECR/2031	05.01.2022
(iv)	Defense: B/46937/ Sigs 7(b)/1744	11.09.2019

संदर्भ (i) द्वारा प्रस्तुत पीटीसीसी प्रस्ताव की जांच की गई है। उपर्युक्त संदर्भों (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 अनापत्ति 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: उपरोक्त अनुसार

राधकेश प्रताप सिंह
निदेशक - 21.03.22

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



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-159 / 272-274
PTCC proposal for LILO of 220 kV S/C Khagaul (BSPTCL) to Sipara (BSPTCL) at Jakkanpur (New): 24.611 km

Reference:		
S. No.	Reference No.	Dated
(i)	Bihar Grid Company Ltd. : JV/PT/TW-01/PTCC/K-S/2077	06.08.2019
(ii)	BSNL: DE/PTCC/ER/EBR240720192523-529/01	13.03.2020
(iii)	East Central Railway: ECR-HQ0SnT(CPTC)/1/2020-O/o Dy.CSTE/HQ/ECR/2031	05.01.2022
(iv)	Defense: B/46937/ Sigs 7(b)/1744	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.

राधकेश प्रसाद (सि.ई.)
21.03.22
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

CEA : BHR-159

(Annexure-I)

Particulars details of parallel Telecom alignment proforma							
Case no. EBR240720192524				Map scale : 1" = 1 Mile / 1 cm = 500Mts.			
Name of the power line : L.I.O of 220 KV SIC Khagauli (BSPTCL) - Sipara (BSPTCL) at Jakkampur (New)				Total length :- 24.611 Km			
				Average S.R. value : 15,000 - 20			
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	BELDARICHAK EXCHANGE	A					
	BELDARICHAK EXCHANGE TO KANSARI VILLAGE (50 pr.U/G Cable, dist. 1.5 km)	1 (OUT OF BOUNDARY)					
	BELDARICHAK EXCHANGE TO ABGILA VILLAGE (50 pr.U/G Cable, dist. 6 km)	2 (OUT OF BOUNDARY)					
	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					
	BIR BAZAR TO DEVDAHO (20 pr.U/G Cable, dist. 2 km)	5					
	BELDARICHAK EXCHANGE TO BALUA CHAK (100 pr.U/G Cable, dist. 1.5 km)	6					
	BALUA CHAK TO LAKNA BAZAR (50 pr.U/G Cable, dist. 3 km)	7					
1b	BELDARICHAK EXCHANGE TO SAIDANPUR (50 pr.U/G Cable, dist. 6 km)	3 (OUT OF BOUNDARY)					
2	PUNPUN EXCHANGE	B					
	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					
	PUNPUN XGE TO RASIL CHAK (100 pr.U/G cable, dist. 2 km)	4					
	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					
	PUNPUN XGE TO MAIN PILLAR (200 pr.U/G cable, dist. 0.05km)	7					
	MAIN PILLAR TO PAKARI (50 pr.U/G cable, dist. 0.360km)	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					
3	SONMAI EXCHANGE	C					
	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					

IV less than 430V

(1/3)

सहायक निदेशक-II, Asst. Director-II
 केन्द्रीय विद्युत प्राधिकरण/C.E.A.
 विद्युत मंत्रालय/Ministry of Power
 भारत सरकार/Govt. of India
 नई दिल्ली /New Delhi-66

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
	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					
4	MASOURHI EXCHNGE TO RAIL GUMTI (400x2 pair U/G cable, dist. 2.5 km)	D					
	RAIL GUMTI TO BUS STAND(200x1 pair U/G cable, dist. 0.3 km)	1					
	RAIL GUMTI TO PALI ROAD PILLAR(400x1 pair U/G cable, dist. 0.6 km)	2					
	PALI ROAD PILLAR TO PAIL ROAD MORE(100x1 pair U/G cable, dist. 0.6 km)	3					
	BUS STAND TO VILLAGE (200x1 pair U/G cable, dist. 0.3 km)	4					
	RAIL GUMTI TO DHANARUA ROAD(100x1 pair U/G cable, dist. 1 km)	5					
	MASOURHI EXCHNGE TO CHOWRAHA(400x1 pair U/G cable, dist. 0.2 km)	6					
	MASOURHI EXCHNGE TO CHOWRAHA(100x1 pair U/G cable, dist. 0.2 km)	7.0					
	MASOURHI EXCHNGE TO TAREGNA STN PILLAR(400x1 pair U/G cable, dist. 2 km)	8					
	TAREGNA STN PILLAR TO GRP(100x1 pair U/G cable, dist. 0.3 km)	9					
	TAREGNA STN PILLAR TO CENTRAL BANK(100x1 pair U/G cable, dist. 1 km)	10					
	TAREGNA STN PILLAR TO RAHAMAT GANJ(200x1 pair U/G cable, dist. 0.6 km)	11					
	RAHAMAT GANJ TO GANDIMAIDAN(100x1 pair U/G cable, dist. 0.5 km)	12					
		13					
5	DHANARUA XGE TO MAIN ROAD (700 pair U/G cable, dist.0.2 km)	E					
	MAIN ROAD TO JALALPUR (10 pair U/G cable, dist.1.2 km)	1					
	JALALPUR TO PNB DHANARUA (100 pair U/G cable, dist.1 km)	2					
6	SIMRA XGE TO SIMRA VILAGE (20 pair U/G cable, dist.0.2 km)	F					
	SIMRA XGE TO SIMRA VILAGE (20 pair U/G cable, dist.0.2 km)	1					
	SIMRA XGE TO PARSA BAZAR (200 pair U/G cable, dist.1.5 km)	2					
	PARSA BAZAR TO PIPRA (50 pair U/G cable, dist.1 km)	3					
	PARSA BAZAR TO KURTHAUL (50 pair U/G cable, dist.1 km)	4					
7	FARIDPUR XGE TO 8NO PILLAR (100 pair U/G cable, dist.0.250km)	G					
	8NO PILLAR TO RAMPUR & KORRA (50 pair U/G cable, dist.1.500 km)	1					
	8NO PILLAR TO 7NO PILLAR (200 pair U/G cable, dist.0.300 km)	2					
	7NO PILLAR TO PASHI & BIRAN CHAK (50 pair U/G cable, dist.0.450 km)	3					
8	KHAJPURA EXCHNGE TO RUKANPURA (8X800 pair U/G cable, dist.2km)	H					
	KHAJPURA EXCHNGE TO JAGDEVPATH (2X400 pair U/G cable, dist.1.6km)	1					
		2					

IV less than 430V

(2/3)

संयुक्त निदेशक-II/Asstt. Director-II
 केन्द्रीय विद्युत प्राधिकरण/C.E.A.
 विद्युत मंत्रालय/Ministry of Power
 भारत सरकार/Govt. of India
 नई दिल्ली/New Delhi-65

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
9	KHAJPURA EXCHANGE(Shiv Mandir) TO JAGDEVPATH(Neel Bagh) (2X200 pair U/G cable, dist.2.5km)	3	[Handwritten mark]				
	NEORA EXCHANGE	1					
	NEORA EXCHANGE TO SHIVALA (1X200 pair U/G cable, dist.1km)	1					
	NEORA EXCHANGE TO SHIVALA (1X100 pair U/G cable, dist.1km)	2					
	SHIVALA TO HINDUSTAN PRESS(1X50 pair U/G cable, dist.0.5km)	3					
10	KHAGGAUL EXCHANGE	J					
	KHAGGAUL EXCHANGE TO (DRM OFFICE) TO KHAGGAUL MARKET (2X800 pair U/G cable, dist.1.5km)	1					
	KHAGGAUL EXCHANGE TO (DRM OFFICE) TO KHAGGAUL MARKET (2X400 pair U/G cable, dist.1.5km)	2					
11	RANJANPATH EXCHANGE	K					
	RANJANPATH EXCHANGE TO GOLA ROAD (4X800 pair U/G cable, dist.1.5km)	1					
	RANJANPATH EXCHANGE TO RPS MORE (1X400 pair U/G cable, dist.0.5km)	2					
	GOLA ROAD TO ST. KAREN SCHOOL(2X200 pair U/G cable, dist.0.5km)	3					
12	AIMS EXCHANGE	L					
	AIMS EXCHANGE TO MAIN GATE (100 pair U/G cable, dist.0.5km)	1	IV less than 420V				
	AIMS EXCHANGE TO CAMPUS 100 pair U/G cable, dist.0.45km)	2					
13	WALMI EXCHANGE	M					
	WALMI EXCHANGE TO DR. COLONY (100 pair U/G cable, dist.0.6km)	1					
	WALMI EXCHANGE TO WALMI (50 pair U/G cable, dist.0.4km)	2					
13	PHULWARI EXCHANGE	N					
	PHULWARI EXCHANGE TO BLOCK 800 pair U/G cable, dist. 0.2km)	1					
	PHULWARI EXCHANGE TO PATHAIA BAZAR 400 pair U/G cable, dist. 0.4km)	2					
	PHULWARI EXCHANGE TO THANA (800 X2) pair U/G cable, dist. 1 Km)	3					
	THANA TO FCI (400)pair U/G cable, dist. 0.8 Km)	4					
	THANA TO PILLAR NO-72 (400)pair U/G cable, dist. 0.4 Km)	5					
	THANA TO PILLAR NO-1100 (400)pair U/G cable, dist. 0.15 Km)	6					
13	ANISHABAD EXCHANGE	O					
	ANISHABAD EXCHANGE TO ANISHABAD CHAK 800 pair U/G cable, dist. 0.3km)	1					
	ANISHABAD CHAK TO POST OFFICE 200 pair U/G cable, dist. 0.3km)	2					
	ANISHABAD CHAK TO ALINAGAR COLONY 400 pair U/G cable, dist. 1 Km)	3					
	SURYA MANDIR TO Police Colony (200X2) pair U/G cable, dist. 0.3 Km)	4					
	ANISHABAD CHAK TO SURYA MANDIR (200X2) pair U/G cable, dist. 0.3 Km)	5					
	ANISHABAD EXCHANGE TO BEUR JAIL (400X3)pair U/G cable, dist.1.5km)	6					

(3/3)

[Handwritten signature]

सहायक नि. 4411111/Inspector-II
केन्द्रीय विद्युत प्राधिकरण/C.E.A.
विद्युत मंत्रालय/Ministry of Power
भारत सरकार/Govt.
नई दिल्ली/New Delhi

ANNEXURE - II

CEA Case No.: BHR-159 Name of the Power line: LILO of 220 kV S/C Khagaul (BSPTCL) to Sipara (BSPTCL) at Jakkanpur (New).			Map Scale : 1 cm=500 m Total Length : 24.611 km S.R. Value : 15,000 ohm-cm		
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-HQ0SnT(CPTC)/1/2020-O/o Dy. CSTE/HQ/ECR/2031 Dated : 05.01.2022

Affected Telecom Circuits Details

1	Patna to Parsa Bazar	Out of Parallelism			00
2	Parsa Bazar to Punpun	4.8	0.0009	6098	06
3	Punpun to Pothahi	4.3	0.0032	7593	25
4	Pothahi to Nadwan	3.8	0.0094	7439	70
5	Nadwan to Taregna	Out of Parallelism			00



सहायक नि. / Asst. Director-II
केन्द्रीय विद्युत प्राधिकरण/C.E.A.
विद्युत मंत्रालय/Ministry of Power
भारत सरकार/Govt. of India
नई दिल्ली/New Delhi-66

Tele : 23019746

(Annexure-III)

BHR-159
Directorate General of Signals
Signals 7
General Staff Branch
Integrated HQ of MoD, (Army)
DHQ PO, New Delhi - 110011

B/46937/Sigs 7(b)/1744/

11 Sep 2019

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

PTCC PROPOSAL OF CONSTRUCTING A LILO OF 220KV S/C KHAGAUL (BSPTCL)-
SIPARA (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/K-S/1992 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.

(Signature)

(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

1 *(Signature)*