



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-151
पी.टी.सी.सी. प्रस्ताव LILO of 400 kV D/C (Quad) Nabinagar-II to Patna (PG) transmission line at 400/220/132/33 kV Jakkanpur S/S (New): 16.245 km

सन्दर्भ:		
क्रमांक	सन्दर्भ सं.	दिनांक
(i)	Bihar Grid Company Ltd. : BG/JV/PAT/TW-01/PTCC/1300 (एवं 21.02.2022 को मेल द्वारा प्राप्त विवरण)	29.01.2019
(ii)	BSNL: DE/PTCC/ER/EBR240720192523-529/01	13.03.2020
(iii)	East Central Railway: ECR/S&T/PTCC/134, Pt. III/139	18.04.2019
(iv)	Defense: B/46937/ Sigs 7(b)/1747	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 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

माचिकेड प्रमोप सिंह
निदेशक 22.2.22

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-800061.	जानकारी हेतु

mlr



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Power Communication Development Division

CEA Case No.: BHR-151
PTCC proposal for LILO of 400 kV D/C (Quad) Nabinagar-II to Patna (PG) transmission line at 400/220/132/33 kV Jakkampur S/S (New): 16.245 km

Reference:		
S. No.	Reference No.	Dated
(i)	Bihar Grid Company Ltd. : BG/JV/PAT/TW-01/PTCC/1300 (and details received via mail on 21.02.2022)	29.01.2019
(ii)	BSNL: DE/PTCC/ER/EBR240720192523-529/01	13.03.2020
(iii)	East Central Railway: ECR/S&T/PTCC/134, Pt. III/139	18.04.2019
(iv)	Defense: B/46937/ Sigs 7(b)/1747	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.

Raghvendra Prasad Singh
22.02.22
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

M/C

CEA: BHR-151

(Annexure - I)

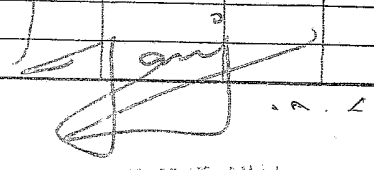
Particulars details of parallel Telecom alignment proforma							
Case no. EBR240720192529				Map scale: 1" = 1 Mile / 1 cm. = 500Mts.			
Name of the power line : LILO of 400kV D/C (Quad) Nabinagar-II - Patna (PG) Transmission Line at Jekkanpur(new)				Total length :- 16.245 Km			
				Average S.R.value : 15000 μ 2-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 saperation in Yards
1	2	3	4	5	6	7	8
2	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. 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					
	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					
h	BELDARICHAK EXCHANGE TO SAIDANPUR (50 pr.U/G Cable, dist. 6 km)	8 (OUT OF BOUNDARY)				IV less than	
2	PUNPUN EXCHANGE	B					
	PUNPUN XGE TO PUNPUN BANDH (200 pr.U/G cable, dist. 1.5 km)	1				430 V	
	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					
	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. 0.300km)	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					
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					
	SONMAI GRID TO MAI VILLAGE (20 pair U/G cable, dist.0.3 km)	3					
d	SONMAI XGE TO SONMAI SBI BANK (10 pair U/G cable, dist.0.1km)	4					

राजेश/TANUJ
 असिस्टेंट डायरेक्टर-II /Asstt. Director-II
 संचार विभाग/संचार विभाग/C.E.A.
 भारत सरकार/Ministry of Power
 नया दिल्ली/Govt. of India
 पिन कोड-110002

(1/2)

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	MASOURHI EXCHANGE	D					
	MASOURHI EXCHANGE TO RAIL GUMTI (400x2 pair U/G cable, dist. 2.5 km)	1					
	RAIL GUMTI TO BUS STAND (200x1 pair U/G cable, dist. 0.3 km)	2					
	RAIL GUMTI TO PALI ROAD PILLAR (400x1 pair U/G cable, dist. 0.6 km)	3					
	PALI ROAD PILLAR TO PAIL ROAD MORE (100x1 pair U/G cable, dist. 0.8 km)	4					
	BUS STAND TO VILLAGE (200x1 pair U/G cable, dist. 0.3 km)	5					
	RAIL GUMTI TO DHANARUA ROAD (100x1 pair U/G cable, dist. 1 km)	6					
	MASOURHI EXCHANGE TO CHOWRAHA (400x1 pair U/G cable, dist. 0.2 km)	7					
	MASOURHI EXCHANGE TO CHOWRAHA (100x1 pair U/G cable, dist. 0.2 km)	8					
	MASOURHI EXCHANGE TO TAREGNA STN PILLAR (400x1 pair U/G cable, dist. 2 km)	9					
	TAREGNA STN PILLAR TO GRP (100x1 pair U/G cable, dist. 0.3 km)	10					
	TAREGNA STN PILLAR TO CENTRAL BANK (100x1 pair U/G cable, dist. 1 km)	11					
	TAREGNA STN PILLAR TO RAHAMAT GANJ (200x1 pair U/G cable, dist. 0.6 km)	12					
	RAHAMAT GANJ TO GANDMAIDAN (100x1 pair U/G cable, dist. 0.5 km)	13					
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					

IV less than
430V



D. S. TANUJ
 Director (Asstt. Director)
 Ministry of Power
 Govt. of India
 New Delhi

ANNEXURE - II

CEA Case No.: BHR-151 Name of the Power line: LILO of 400 kV D/C (Quad) Nabinagar-II to Patna (PG) transmission line at 400/220/132/33 kV Jakkanpur S/S (New).			Map Scale : 1 cm=500 m Total Length : 16.245 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/S&T/PTCC/134, Pt. III/139			Dated : 18.04.2019		
<u>Affected Telecom Circuits Details</u>					
1	Parsa Bazar to Punpun	Out of Parallelism			00
2	Punpun to Pothahi	1.6	0.0048	12658	61
3	Pothahi to Nadwan	4.1	0.0052	11250	59
4	Nadwan to Taregna	0.4	0.0001	12187	02



JANY / TANUJ
 जयन्त शर्मा-II/Asstt. Director-II
 जयन्त शर्मा जयन्त शर्मा/C.E.A.
 जयन्त शर्मा/Ministry of Power
 जयन्त शर्मा / Govt. of India
 जयन्त शर्मा / New Delhi-66

Tele : 23019746

(Annexure - III)

BNR-151
Directorate General of Signals
Signals 7
General Staff Branch
Integrated HQ of MoD, (Army)
DHQ PO, New Delhi - 110011

B/46937/Sigs 7(b)/1747/

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 400KV D/C (QUAD) NABINAGAR II-
PATNA (PG) TRANSMISSION LINE AT JAKKANPUR (NEW) FOR STRENGTHENING OF
TRANSMISSION SYSTEM OF BIHAR UNDER PHASE-I, PART-2**

1. Ref your letter No JV/PT/BG/TW-01/N-P/1989 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