



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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CEA Case No. : BHR-173 / 238 - 240
PTCC proposal of LILO of Kishanganj (POWERGRID) – Darbhanga (DMTCL) 400 kV D/C line at Saharsa (New) substation (Loop In : 18.203 km & Loop Out : 20.721 km)

Reference:		
S. No.	Reference No.	Dated
(i)	POWERGRID: ER-I/PAT/ENGG/PTCC/LILO:KIS-DAR/SAHARSA/2971	10.02.2021
(ii)	BSNL: DE/PTCC/ER/EJH010320212941	01.04.2022
(iii)	East Central Railway: ECR-HQ0SnT(CPTC)/1/2020-O/o Dy.CSTE/HQ/ECR/1934	13.05.2021
(iv)	Defense: B/46937/ Sigs 7(b)/2354	31.03.2021

The PTCC proposal submitted vide reference (i) has been examined. The LF induction on telecom cables of BSNL and block & telecom circuits of East Central Railway with respect to details furnished vide above reference (ii) & (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 & II respectively. The screening factors, as applicable, have been considered. Vide reference (iv) above, The Defence Authority have issued No Objection Certificate (NOC) (a copy enclosed as Annex-III).

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

Encl.: As above.

राधेन्द्र प्रताप सिंह  
5.4.22  
Director

To,

1.	Divisional Engineer (PTCC), Eastern Zone	BSNL O/o DET(PTCC), Eastern Zone, QA & Inspection Circle, Q.A Bhawan, EP-GP Block, Sector-V, Salt lake, Kolkata-700091.	
2.	Dy. CSTE	East Central Railway, Office of the General Manager (S&T), Hajipur - 844118	Annexure-II only
3.	Dy. General Manager (Engg.)	POWERGRID, Eastern Region-I RHQ, Board Colony, Shastri Nagar, Patna - 800023	Copy for info

File No.CEA-PS-17-11(13)/8/2022-PCD Division



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आजादी का  
अमृत महोत्सव

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केन्द्रीय विद्युत प्राधिकरण  
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Power Communication Development Division

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के.वि.प्रा. केस सं. : BHR-173 / 238-240
पी.टी.सी.सी. प्रस्ताव LILO of Kishanganj (POWERGRID) – Darbhanga (DMTCL) 400 kV D/C line at Saharsa (New) substation (Loop In : 18.203 km & Loop Out : 20.721 km)

क्रमांक	सन्दर्भ सं.	दिनांक
(i)	POWERGRID: ER-I/PAT/ENGG/PTCC/LILO:KIS-DAR/SAHARSA/2971	10.02.2021
(ii)	BSNL: DE/PTCC/ER/EJH010320212941	01.04.2022
(iii)	East Central Railway: ECR-HQ0SnT(CPTC)/I/2020-O/o Dy.CSTE/HQ/ECR/1934	13.05.2021
(iv)	Defense: B/46937/ Sigs 7(b)/2354	31.03.2021

संदर्भ (i) द्वारा प्रस्तुत पीटीसीसी प्रस्ताव की जांच की गई है। बीएसएनएल के टेलिकॉम केबलों एवं पूर्वीय मध्य रेल के क्लॉक एवं टेलिकॉम सर्किटों पर निम्न आवृत्ति प्रेरण गणना क्रमशः उपरोक्त संदर्भ (ii) एवं (iii) में दिए गए विवरणों के संबंध में की गई है। सिंगल लाइन टू ग्राउंड फाल्ट अवस्था में समानांतर बीएसएनएल के टेलिकॉम केबलों एवं पूर्वीय मध्य रेल के क्लॉक एवं टेलिकॉम सर्किटों पर प्रेरित वोल्टेज क्रमशः अनुलग्नक -I एवं II में संलग्न है। स्क्रीनिंग कारक का मान यथानुरूप लिया गया है। रक्षा प्राधिकरण ने उपरोक्त संदर्भ (iv) के द्वारा अनापत्ति प्रमाण पत्र जारी किया है (अनुलग्नक- III में संलग्न)।

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

संलग्न: ऊपरोक्त अनुसार

राधादेव प्रसाद सिंह  
5/4/22  
निदेशक

To,

1.	Divisional Engineer (PTCC), Eastern Zone	BSNL O/o DET(PTCC), Eastern Zone, QA & Inspection Circle, Q.A Bhawan, EP-GP Block, Sector-V, Salt lake, Kolkata-700091.	
2.	Dy. CSTE	East Central Railway, Office of the General Manager (S&T), Hajipur - 844118	Annexure-II only
3.	Dy. General Manager (Engg.)	POWERGRID, Eastern Region-I RHQ, Board Colony, Shastri Nagar, Patna - 800023	Copy for info

Annex - 1

Particulars details of parallel Telecom alignment proforma						
Case no.	DE/PTCC/EJH01320212941 dtd. 01.03.2021					
	Map scale : 1" = 1 Mile / 1 cm. = 500Mts.					
	SR : 5000 0-cm					
Name of the power line : 400kV D/C LILO of Kishanganj- Darbhanga Line						
Total length :- 38.9 km						
Sl.no.	Telecom circuits	Marked as	Length of parallelism in km	Mutual coupling in Ohms	Effective fault current in Amp.	I.V. in Volts
1	2	3	4	5	6	7
1	SUKHPUR EXCHANGE	A B				
a	Sukhpur exchange to pillar a (100 pr. U/G cable, dist. 1.5 km)					
b	Sukhpur exchange to pillar b (100 pr. U/G cable, dist. 3 km)					
c	Sukhpur exchange to pillar c (50 pr. U/G cable, dist. 3 km)					
d	Sukhpur exchange to pillar d (100 pr. U/G cable, dist. 1 km)					
2	GARH BARUARI EXCHANGE	B C				
a	Ghar Baruari Exchange to pillar a ( 200 pr U/G cable, dist.2 km)					
b	Ghar Baruari Exchange to pillar b ( 150 pr U/G cable, dist. 2 km)					
c	Ghar Baruari Exchange to pillar c ( 50 pr U/G cable, dist.0.3 km)					
d	Ghar Baruari Exchange to pillar d ( 50 pr U/G cable, dist.0.3 km)					
3	PANCHGACHHIYA EXCHANGE	C A				
a	Exchange DEAD					

IV less than 430 V

Prateek

प्रतीक श्रीवास्तव / PRATEEK SRIVASTAVA  
 सहायक निदेशक-II/Assst. Director-II  
 क्षेत्रीय विद्युत अधिकारण/ C.E.A.  
 विद्युत मंत्रालय/Ministry of Power  
 भारत सरकार/Govt. of India  
 नई दिल्ली/NEW DELHI

**ANNEXURE - II**

<b>CEA Case No.: BHR-173</b>		<b>Map Scale : 1 cm=500 m</b>			
<b>Name of the Power line: LILO of Kishanganj (POWERGRID) – Darbhanga (DMTCL) 400 kV D/C line at Saharsa (New) substation</b>		<b>Total Length : Loop In : 18.203 km Loop Out : 20.721 km</b>			
		<b>S.R. Value : 5,000 <math>\Omega</math>-cm</b>			
<b>S.No.</b>	<b>Telecom. Details</b>	<b>Length of Parallelism in Km.</b>	<b>Mutual Coupling in Ohms.</b>	<b>Effective Fault current in Amps.</b>	<b>I.V. in Volts.</b>

EAST CENTRAL RAIWAY Ref. No: ECR-HQ0SnT(CPTC)/1/2020-O/o Dy.CSTE/HQ/ECR/1934  
Dated: 13.05.2021

**Affected Blocks & Telecom Circuits Details**

<b>1</b>	<b>Pachgachhia - Garhbarwari</b>	<b>5.5</b>	<b>0.0014</b>	<b>9500</b>	<b>13</b>
<b>2</b>	<b>Garhbarwari - Supaul</b>	<b>6.8</b>	<b>0.0006</b>	<b>12600</b>	<b>8</b>
<b>3</b>	<b>Supaul - Tharbita</b>	<b>Out of parallelism</b>			<b>0</b>

*Prateeb*

Tele : 23019746

BHR-173①

Annex-III

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

B/46937/Sigs 7(b)/2354/

31 Mar 2021

Dy. General Manager (Engg)  
Power Grid Corporation of India Limited  
Eastern Region-I RHQ, Board Colony  
Shastri Nagar, Patna-800023 (Bihar)

**PTCC APPROVAL FOR CONSTRUCTION OF LOOP IN & LOOP OUT (LILO) OF  
400KV D/C KISHANGANJ-DARBHANGA TRANSMISSION LINE AT  
400/220/132KV SAHARSA SUB-STATION (NEW), ASSOCIATED WITH  
ERSS-XXIII**

1. Refer your letter No ER-I/PAT/ENGG/PTCC/LILO:KIS-DAR/SAHARSA/2971 dt 10 Feb 2021 (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.

*AR*

(A Rawat)  
Lt Col  
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

The DET(PTCC), Northern Zone  
O/p PGM (North), QA & Inspection Circle,  
D-Tax Building, Eastern Court, Janpath  
New Delhi-110001

for information

