



भारत सरकार

Government of India

विद्युत मंत्रालय

Ministry of Power

केन्द्रीय विद्युत प्राधिकरण

Central Electricity Authority

पावर कम्युनिकेशन डवलपमेंट प्रभाग

Power Communication Development Division

No.: CEA/PCD/PTCC/BHR-150/1168-171

Date: 12.02.2019

DET (PTCC), Eastern Zone,
Inspection & QA Circle, BSNL
Q.A. Bhawan, EP-GP Block, Sector-V,
Salt Lake, Kolkata – 700091

Subject: Induced Voltage Calculation in respect of PTCC proposal for 400 kV D/C (Quad) Kishanganj (PGCIL) – Darbhanga (DMTCL) Transmission Line

Reference: (i) BSNL letter no. DE/PTCC/EBR280720181713/01 dated 23.10.2018
(ii) East Central Railway letter no. ECR/S&T/PTCC/134, Pt.III dated 11.12.2018
(iii) Northeast Frontier Railway letter no. N/146/2/10 Pt. VI (TC) dated 22.10.2018
(iv) Defense letter no. B/46937/Sigs 7(b)/1166 dated 20.11.2018

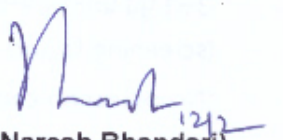
Sir,

The instant PTCC proposal has been examined. Low frequency induction on Block and Telecom Circuits of East Central Railway & North East Frontier Railway with respect to details furnished vide above references has been computed. The average Soil Resistivity (SR) value has been taken as 50,000-1,00,000 ohm-cm, as intimated by the power authority. The voltages likely to be induced on paralleling Block and Telecom Circuits of East Central Railway & North East Frontier Railway under single line to ground fault condition have been computed and are enclosed as Annex – I and II respectively. The screening factors, as applicable, have been considered. Vide ref. (i) above, BSNL have issued No Objection Certificate (NOC). Vide ref. (iii) above, Defense Authority have issued No Objection Certificate (NOC) (enclosed as Annex – III).

Taking above into consideration, kindly issue PTCC route approval.

Encl.: As above

m/c


(Naresh Bhandari)
Chief Engineer

Copy to:

- (i) GM (S&T), East Central Railway, Hajipur, Vaishali, Bihar - 844101 – (Annex – I only)
- (ii) GM (S&T), North East Frontier Railway, Maligaon, Guwahati, Assam - 781011 – (Annex – II only)
- (iii) AGM – Projects, Alipurduar Transmission Limited, Flat no. S-2, North View Apartment, Sarbopally Road, Ward No. 42 of SMC, 2 1/2 Mile, Sevoke Road, P.O.- Salugara, P.S.-Bhaktinagar, Siliguri, Dist.- Jalpaiguri, West Bengal - 734008

ANNEXURE - I

Case No.: BHR-150		Map Scale : 1cm=500mts			
Name of the Power line: 400 KV D/C (Quad) Kishanganj (PGCIL) – Darbhanga (DMTCL) Transmission Line		Total Length : 208.41 Km.			
		Avg Soil Resistivity : 50000-100000 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 letter no. – ECR/S&T/PTCC/134, Pt.III dated 11.12.2018					
Affected Block Section of Sakri - Biraul of Samastipur Division					
1	Sakri – Jagdishpur	OUT OF IV CALCULATION CONSIDERATION ZONE			0
2	Jagdishpur – Benipur	1.7	0.0115	12750	147
3	Benipur – Neuri Halt	3.0	0.0028	12700	36
4	Neuri Halt - Biraul	OUT OF IV CALCULATION CONSIDERATION ZONE			0
Affected Block Section of Sharsa - Raghapur of Samastipur Division					
1	Sharsa – Supaul	3.2	0.0108	8300	90

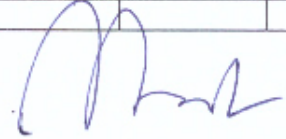


नरेश भंडारी/NARESH BHANDARI
 मुख्य अभियन्ता/Chief Engineer
 केन्द्रीय विद्युत प्राधिकरण/C.E.A.
 विद्युत मंत्रालय/Ministry of Power
 भारत सरकार/Govt. of India
 नई दिल्ली/New Delhi-66

ANNEXURE – II

Case No.: BHR-150		Map Scale : 1cm=500mts			
Name of the Power line: 400 kV D/C (Quad) Kishanganj (PGCIL) – Darbhanga (DMTCL) Transmission Line		Total Length : 208.41 Km.			
		Avg Soil Resistivity : 50000-100000 ohm-cm			
S.No	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.

NORTHEAST FRONTIER RAILWAY letter no. – N/146/2/10 Pt. VI (TC) dated 22.10.2018					
1	Jalalgarh – Kushiyaogaon	1	0.0003	10000	3
2	Kushiyaogaon – Arariya	8.9	0.0248	10000	248
3	Arariya - Simraha	5.45	0.0021	9500	20



नरेश भंडारी/NARESH BHANDARI
 मुख्य अभियन्ता/Chief Engineer
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 भारत सरकार/Govt. of India
 नई दिल्ली/New Delhi-66

Tele : 23019746

Annex- III

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

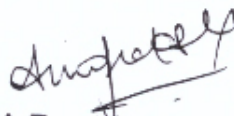
B/46937/Sigs 7(b)/1166/

20 Nov 2018

~~Asstt. General Manager-Projects~~
Alipurduar Transmission Limited
Flat No. S-2, North View Apartment, Sarbopally Road
Ward No. 42 of SMC, 2 ½ Mile, Sevoke Road
P.O.-Salugara, P.S.-Bhaktinagar, Siliguri
Dist. Jalpaiguri, West Bengal, Pin-734008

CONSTRUCTION OF 400 KV D/C (QUAD) KISHANGANJ (PGCIL)-DARBHANGA
(DMTCL) TRANSMISSION LINE- SUBMISSION OF PROPOSAL FOR PTCC
CLEARANCE

1. Ref your letter No. ATL/SLG/292BH/248/2018 -19 dt 16 May 2018 (copy att).
2. No Objection Certificate (NOC) is accorded based on inputs provided vide Map sheets 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

- for information.