



सत्यमेव जयते



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

No. CEA/PCD/ PTCC/BHR-163/509-511

Date: 07.09.2020

**Subject: - Induced voltage calculation in respect of 400 kV D/C (Triple Snowbird)
Dharbhanga to Sitamarhi Transmission line- reg.**

Ref. : (i) PGCIL Ref. No. ER-I/PAT/ENGG/PTCC/LILO Dated: 26.07.2019
SAHARSA/58/4171
(ii) BSNL Ref. No. DE/PTCC/ER/EJH050820192539/01 Dated: 12.09.2019
(iii) East Central Railway Ref. No. ECR/S&T/PTCC/134,Pt.III/871 Dated: 03.09.2019
(iv) Defense Ref. No. B/46937/Sigs 7(b)/1760/ Dated: 05.09.2019

The PTCC proposal submitted vide ref. (i) has been examined. Vide ref.(ii) above, BSNL has conveyed NOC for the proposed power line The low frequency induction on block and communication circuits of East Central Railway lines as per details furnished vide ref. (iii) has been examined. The Soil Resistivity value has been taken as 5,000 Ohms-cm, as per data submitted by Power Authority. Voltages likely to be induced on paralleling Railway block and communication circuits under single line to ground fault condition are enclosed at Annex-I. The screening factors as applicable have been considered. Defense has accorded 'No objection Certificate' (NOC) vide above ref. (iv) for this line (a copy enclosed at Annex-II).

Taking above into consideration, kindly take necessary action regarding issue of PTCC route approval.

Encl.: As above.

Upendra Kumar

(Upendra Kumar)
Chief Engineer, PCD

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

M/C

ANNEXURE - I

Case No.: BHR-163 Name of the Power line: 400 kV D/C (Triple Snowbird) Dharbhanga to Sitamarhi Transmission line.			Map Scale : 1cm=500mts Total Length : 79.022 Km. S.R. Value : 5,000 Ohms-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					
Ref. No: ECR/S&T/PTCC/134,Pt.III/871 DATED: 03-09-2019					
<u>Affected Blocks & Telecom Circuits Details</u>					
1	Hayaghat to Thalwara	2.7	0.0010	14050	14
2	Thalwara to Laheriasarai	1.9	0.0053	13232	70
3	Laheriasarai to Dharbhanga	} Outside IV consideration Zone			00
4	Dharbhanga to Mohamadpur				00
5	Mohamadpur to Kamtaul				00
6	Kamtaul to Jogiara				00
7	Sitamarhi to Dumra				00
8	Dumra to Garha	1.5	0.0005	13424	07
9	Garha to Runidaidpur	Outside IV consideration Zone			00

Jony

TANUJ / TANUJ
 सहायक 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-66

Tele : 23019746

BMR-163

(Annexure-II)

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

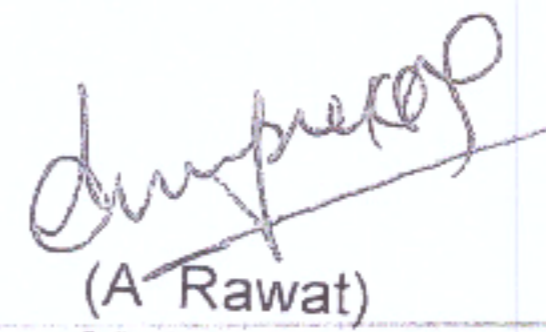
05 Sep 2019

B/46937/Sigs 7(b)/1760/

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

PROPOSAL FOR PTCC APPROVAL FOR CONSTRUCTION OF 400KV D/C (TRIPLE SNOW BIRD) SITAMARHI-DARBHANGA TRANSMISSION LINE, ASSOCIATED WITH ERSS-XXI UNDER TARIFF BASED COMPETITIVE BIDDING (TBCB) PROJECTS

1. Ref your letter No ER-I/PAT/ENGG/PTCC/LILO SAHARSA/58/4171 dt 26 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