



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/KNK-917/798-800

Date: 15.12.2020

Subject: Induced voltage calculation in respect of 220 kV DC line on DC towers from proposed 400/220 kV RS at Hebbanahalli village (DC-4) to proposed 220/66 kV SS at Chikkanagara (DC-3) in Sakaleshapura Taluk, Hassan district for Yettinahole Integrated Drinking Water Supply Scheme.-regd.

- Ref.:**
- KPTCL Ref. No. CEE/SLDC/PTCC/F-2874/18473-81 dated 14.02.2019
 - BSNL Ref. No. SR-PTCC/SKT-2355/4 dated 14.11.2019
 - South Western Railway Ref. No. SG/SWR/PTCC/F-2874/1873/04 dated 02.04.2019
 - Defense Ref. No. B/46937/Sigs 7(b)/1477 dated 03.04.2019 received in this office over email from KPTCL on 08.12.2020

The PTCC proposal submitted vide ref. (i) has been examined. The LF induction on telecom cables of BSNL and block & telecom circuits of South Western Railway, as per details furnished vide ref. (ii) and (iii) respectively, has been examined. The Soil Resistivity value has been taken as 25,000 Ohms-cm. Voltages likely to be induced on paralleling telecom cables of BSNL and block & telecom circuits of South Western Railway, under single line to ground fault condition are enclosed at Annex-I and II respectively. The screening factors as applicable have been considered. Defense has accorded NOC vide above ref. (iv) for this line (a copy enclosed at Annex-III).

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

Encl.: As above.

(Upendra Kumar)
Chief Engineer

MIC

To

- The Divisional Engineer (PTCC), Southern Zone, Bharat Sanchar Nigam Limited (BSNL), Inspection Circle, 1st Floor, Raj Bavan Exchange No. 26, Sardar Patel Road, Guindy, Chennai-600032 (Annex-I and III only)
- PCSTE, South Western Railway, 1st floor, West Block, Rail Soudha, Gadag Road, Hubli-580020 (Annex-II only)

Copy to:

Chief Engineer, KPTCL O/o Chief Engineer Electricity, State Load Despatch Centre, #28, Race Course Cross Road, Bengaluru-560009

KNK-917

Annex-I

Case No.F-2874/SKT-2355		SSA: Hassan							
Name of the power line: 220KV DC line on DC Towers from Proposed 400/220KV RS at Hebbanahalli Village (DC-4) to Proposed 220/66KV S/S at Chikkanagara (DC-3) in Sakaleshapura Taluk, Hassan District. for Yettinahole Integrated Drinking Water Supply Scheme									
Length:	8.510	Kms							
Average SR value : 25000ohm cms		Type of BSNL cable: PIJF							
Sl.No.	Name of Telecom line	LOP in KMs	MC in Ohms	FC in Amps	IV in Volts				
I. A Arehally Telecom Exchange Cable									
1	Arehally Exchange to Sekleshpura Road (A-A1)	}							
2	Arehally Exchange to Panchayat Offic Rd (A-A2)								
3	Arehally Exchange to Arehally Gearge Malnad School Rd (A-A3)								
4	Arehally Exchange to Lingapura (A-A4)								
5	Arehally Exchange to towards North (A-A5)								
Udevara Telephone Exchange Cable									
1	Udevara Exchange to Kallahalli (U-U1)								
2	Udevara Exchange to Sundekere (U-U2)								
III. BG Balegadde Telephone Exchange Cables									
1	Balegadde Exchange to Halslige (BG-BG1)								
2	Balegadde Exchange to Achangi (BG-BG2)								
3	Balegadde Exchange to Shetty Chowltry (BG-BG3)								
IV.S Saklespura Exge UG cables									
1	Exge to APMC yard S-S1								
2	Exge to Market Area S-S2								
3	Exge to Anemahal S-S3								
4	Exge to Ashoka Road S-S4								
5	Exge to Azad Road S-S7								
V.B. Ballupete Telephone Exchange Cables									
1	Ballupete Exchange to Yeslur Rd (B-B1-B5)								
2	Ballupete Exchange to Hassan Rd (B-B2)								
3	Ballupete Exchange to Sakleshpura Rd (B-B3)								
4	Ballupete Exchange to Rejendrapur Rd (B-B1-B4)								

IV less than
430V

Prateek

प्रतीक श्रीवास्तव / PRATEEK SRIVASTAVA
 सहायक निदेशक-II - Asst. Director-II
 केन्द्रीय विद्युत प्राधिकरण / C.E.A.
 विद्युत विभाग / Ministry of Power
 भारत सरकार / Govt. of India
 नई दिल्ली / New Delhi

Case No.: KNK- 917

ANNEXURE - II

Name of the Power Line: 220 kV DC line on DC towers from proposed 400/220 kV RS at Hebbanahalli village (DC-4) to proposed 220/66 kV SS at Chikkanagara (DC-3) in Sakaleshapura Taluk, Hassan district for Yettinahole Integrated Drinking Water Supply Scheme.

Map Scale : 1 cm = 500 m.
Route Length : 8.510 km
Soil Resistivity : 25000 Ohm-cm

S.No.	Telecom Details	Length of Parallelism (in km)	Mutual Coupling (Ohms)	Fault Current (Amps)	Induced Voltage (Volts)
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SOUTH WESTERN RAILWAY					
Ref. No: SG/SWR/PTCC/F-2874/1873/04			DATED: 02-04-2019		
<u>Affected Blocks & Telecom Circuits Details</u>					
1	ALUR-BLLT	0.3	0.0001	8800	1
2	BLLT-SKLR	6.2	0.0087	8200	71
3	SKLR-DOGL	Out of Parallelism			0

Praveen

प्रतीक श्रीवास्तव / PRAVEEN SHRIWASTAVA
सहायक निरीक्षक / Assistant Director-II
केन्द्रीय विद्युत आयोग / C.E.A.
विद्युत विभाग / Ministry of Power
भारत सरकार / Govt. of India
नई दिल्ली / New Delhi

Tele : 23019746

Annex - III

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

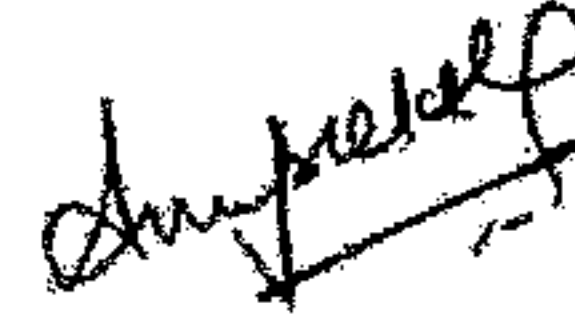
B/46937/Sigs 7(b)/1477

03 Apr 2019

Karnataka Power Transmission Corporation Limited
Office of the Chief Engineer Electricity,
State Load Despatch Centre,
28, R.C. Cross Road,
Bengaluru - 560 009

**PROPOSED 220KV DC LINE ON DC TOWERS FROM PROPOSED 400/220KV RS AT
HEBBANAHALLI VILLAGE (DC-4) TO PROPOSED 220/66KV SS AT CHIKKANAGARA (DC-3)
IN SAKALESHAPURA TALUK, HASSAN DISTRICT FOR YETTINAHOLE INTEGRATED
DRINKING WATER SUPPLY SCHEME**

1. Ref your letter No CEE/SLDG/ PTCC/F-2874/-18473-81 dt 14 Feb 2019 (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.