



सत्यमेव जयते

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/KNK-908/551-553

Date: 17.09.2020

Subject: Induced voltage calculation in respect of 220 kV DC line on DC towers from proposed (under construction) 220/66 kV at Benkikere in Channagiri Taluk, in Davanagere district to proposed 220/66 kV at Hosadurga (Madure) in Hosadurga Taluk, Chitradurga District-regd.

Ref. : (i) KPTCL Ref. No. CEE/SLDC/PTCC/F-2781/8865-74 Dated: 14.08.2018
(ii) BSNL Ref. No. SR-PTCC/SKT-2190/04 Dated: 20.02.2020
(iii) South Western Railway Ref. No. SG/SWR/PTCC/F-2781/1785/05 Dated: 04.10.2018
(iv) Defense Ref. No. B/46937/Sigs 7(b)/1246 Dated: 01.11.2018

The PTCC proposal submitted vide ref. (i) has been examined. The low frequency induction on BSNL cables and block circuits of South Western Railways as per details furnished vide ref. (ii) and ref. (iii) respectively has been examined. The Soil Resistivity value has been taken as 25,000 Ohms-cm, as per data submitted by Power Authority. Voltages likely to be induced on paralleling BSNL cables and Railway block circuits under single line to ground fault condition are enclosed at Annex-I and Annex- 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.

R.P. Singh
17.09.20
for
(Upendra Kumar)
Chief Engineer, PCD

To,
The Divisional Engineer (PTCC), Southern Zone,
Bharat Sanchar Nigam Limited (BSNL), O/o DET (PTCC),
Inspection Circle, 1st Floor, Raj Bavan Exchange No. 26,
Sardar Patel Road, Guindy, Chennai-600032.

Copy to:

1. ASTE/TELE/HQ, O/o Principal Chief Signal & Telecommunication Engineer, South Western Railway, Rail Soudha, Gadag Road, Hubballi-580020. (Annex-II only)
2. Chief Engineer, KPTCL O/o Chief Engineer Electricity, State Load Despatch Centre, #28, Race Course Cross Road, Bengaluru-560009.

(Annexure-I)

Case No.F-2781/SKT-2190		SSA: Davanagere, Shivamogga			
Name of the power line: PTCC proposal for the Proposed 220KV DC Line on DC towers from proposed(Under Construction) 220/66 KV SS at Benkikere in Channagiri Taluk in Davanagere district to proposed 220/66KV SS at Hosadurga(Madhure) in Hosadurga Taluk, Chitradurga District.					
Length:	41.104 Kms				
Average SR value :	25,000 ohm cms				
		Type of BSNL cable: PIJF			
Sl.No.	Name of Telecom line	LOP in KMs	MC in Ohms	FC in Amps	IV in Volts
Davanagere SSA Telecom Details					
I A	Madhure Exchange UG Cables	}	IV less than 430V		
1	Exge to Guttikate(A-A1)				
2	Exge to Madhure Bus Stand(A-A2)				
II B	Bague Exchange UG Cables	IV less than 430V			
1	Exge to Bank Circle(B-B1)				
III C	Hosadurga Exchange UG Cables	}	IV less than 430V		
1	Exge to APMC(C-C1)				
2	Exge to Hosadurga I.B(C-C2)				
IV D	Malladihalli Exchange UG Cables	}	IV less than 430V		
1	Exge to Kengunte(D-D1)				
2	Exge to Dummi(D-D2)				
3	Exge to Shivapura(D-D3)				
4	Exge to Dogganal to Kalkere(D-D4-D5)				
5	Exge to Dogganal to Hulemale(D-D4-D6)				
V E	N.G.Halli Exchange UG Cables	}	IV less than 430V		
1	Exge to Main Road(E-E1)				
VI F	Ramagiri Exchange UG Cables	}	IV less than 430V		
1	Exge to Bus Stand(F-F1)				
Note					
1	GSM Tower located at Ramagiri T/E				
2	GSM Tower located at Malladihalli T/E				
3	GSM Tower located at Hosadurga T/E				
4	GSM Tower located at Madhure T/E				
5	GSM Tower located at Goravinakal T/E				
Shivamogga SSA Telecom Details					
VII A	Hodigere Exchange UG Cables	}	IV less than 430V		
1	Exge to Benkikere(A-A1)				
2	Exge to Hebbalagere(A-A2)				
VIII B	Channagiri Exchange UG Cables	}	IV less than 430V		
1	Exge to Narashettihalli(B-B1)				
2	Exge to Garaga(B-B2)				
3	Exge to Honnebagi(B-B3)				
IX C	Goppenahalli Exchange UG Cables	}	IV less than 430V		
1	Exge to Vadnal(C-C1)				
2	Exge to Pandavamatti(C-C2)				

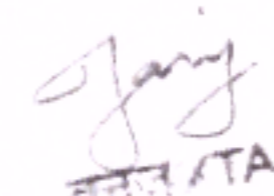
TANUJ
सहायक निदेशक-II / Asst. Director-II
केन्द्रीय विद्युत प्राधिकरण / C.E.A.
विद्युत मंत्रालय / Ministry of Power
भारत सरकार / Govt. of India
नई दिल्ली / New Delhi-110002

ANNEXURE – II

<p>Case No.: KNK- 908</p> <p>Name of the Power Line: 220 kV DC line on DC towers from proposed (under construction) 220/66 kV at Benkikere in Channagiri Taluk, in Davanagere district to proposed 220/66 kV at Hosadurga (Madure) in Hosadurga Taluk, Chitradurga District.</p>	<p>Map Scale : 1 cm = 500 m. Route Length : 41.104 km Soil Resistivity : 25000 Ohm-cm</p>
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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-2781/1785/05 DATED: 04-10-2018					
<u>Affected Blocks & Telecom Circuits Details</u>					
1	HSD-RGI	6.8	0.0042	9879	42
2	RGI-HLK	5	0.0028	8782	25
3	HLK-JRU	Out of parallelism			00


 तनुज / TANUJ
 सहायक निदेशक-II / Asstt. Director-II
 केंद्रीय विद्युत प्राधिकरण / C.E.A.
 विद्युत विभाग / Ministry of Power
 भारत सरकार / Govt. of India
 नई दिल्ली / New Delhi-65

Tele : 23019746

Annex-III

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

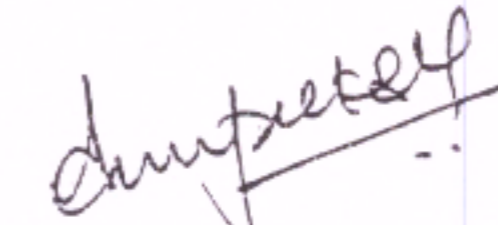
B/46937/Sigs 7(b)/1246/

01 Nov 2018

✓ Chief Engineer (Electricity)
Karnataka Power Transmission Corporation Ltd
State Load Despatch Centre,
28, R.C. Cross Road
Bengaluru - 560009

PROPOSED 220KV DC LINE ON DC TOWERS FROM PROPOSED (UNDER CONSTRUCTION) 220/66KV SS AT BENKIKERE IN CHANNAGIRI TALUK, IN DAVANAGERE DISTRICT TO PROPOSED 220/66KV AT HOSADURGA (MADURE) IN HOSADURGA TALUK, CHITRADURGA DISTRICT

1. Ref your letter No CEE/SLDC/ PTCC/F-2781/-8865-74 dt 14 Aug 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.