

भारत सरकार

Government of India विद्युत मंत्रालय

Ministry of Power केन्द्रीय विद्युत प्राधिकरण

Central Electricity Authority पावर कम्युनिकेशन डवलप्मेंट प्रभाग

Power Communication Development Division

No.:CEA/PCD/PTCC/KNK-890 /15 9 - 6/

Date:11.02.2019

DET (PTCC), QA & Inspection (T&D) Circle, BSNL 1 Floor, Raj Bhavan Exchange, No. 26, Sardar Patel Road, Guindy, Chennai – 600032

Subject:

Induced Voltage Calculation in respect of PTCC proposal for 220 kV DC line from

400/220 kV Guddadahalli Sub-station to proposed 220/110 kV Koppal Receiving station

Reference:

(i) BSNL letter no. SR-PTCC/SKT-2016/3 dated 10.08.2018

(ii) South Western Railway letter no. SG/SWR/PTCC/F-2675/1698 dated 02.04.2018

(iii) Defense letter no. B/46937/Sigs 7(b)/944 dated 06.03.2018

Sir,

The instant PTCC proposal has been examined. Low frequency induction on telecom cables of BSNL and Block & Telecom circuits of South Western Railway with respect to details furnished vide above references has been computed. The Soil Resistivity (SR) value has been taken as 30,000 Ohm-cm, as intimated by the Power Authority (KPTCL). The 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 have been computed and are enclosed as Annex – I & II respectively. The screening factors, as applicable, have been considered. Vide ref. (iii) above, Defense Authority have issued No Objection Certificate (NOC) (enclosed as Annex – III). Taking above into consideration, kindly take necessary action for PTCC route approval.

Encl.: As above

mic

(Naresh Bhandari) Chief Engineer

Copy to:

- 1) PCSTE, South Western Railway, Office of the Principal Chief Signal & Telecom Engineer, 1st Floor, West Block, Rail Soudha, Gadag Road, Hubli 580020 (Annex II only)
- Chief Engineer Electricity, KPTCL, State Load Despatch Centre, No. 28, R.C. Cross Road, Bengaluru -560009

I.A Ginigera Exge UG Exge to Kirloskar F Exge to Guladahall Exge to Cinema Ta Exge to Allanagar A Exge to Renuka Po Exge to Basapur A II.H Hirebagnal Exge UG Exge to Kasanakana Exge to Kasanakana Exge to Allanagar V Exge to Allanagar V Exge to Allanagar V Exge to Thakur Indu Exge to Bazar Area III.K Kunikera Exge UG Exge to Kunikera Th Exge to Kunikera villa Exge to Kunikera villa Exge to Funikera villa Exge to Funikera villa Exge to Funikera Villa Exge to Funikera Villa Exge to Halahalli Vill V.L Halahalli Exge UG Exge to Ginigera Ro Exge to Gangavathi Exge to Budugumpa Exge Exge to Gangavathi Exge to Gangavathi Exge to Huligi Temp Exge to Huligi Temp Exge to Kampasagar Exge to Hosalli B-Ba	o.: KNK-890 of the Power line: 220 kV DC line from 400/220 kV lahalli Sub-station to proposed 220/110 kV Koppal ng station		Map Scale : 1cm=500mts Total Length : 11.323 km Average S.R. : 30,000 Ohm-cm		n .	
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Page 1 of 1

नरेश पंडारी/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.: KNK-890 Name of the Power line: 220 kV DC line from 400/220 kV Guddadahalli Sub-station to proposed 220/110 kV Koppal Receiving station				Map Scale : 1cm=500mts Total Length : 11.323 km Average S.R. : 30,000 Ohm-cm				
S.No.	Telecom. Details	Pa	ength of rallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.		

	South Western Railway letter no. SG/SWR/PTCC/F-2675/1698 dated 02.04.2018					
1	Koppal (KBL) – Ginigera (GIN)	4.0	0.0024	10000	24	
2	Ginigera (GIN) – Munirabad (MRB)	1.8	0.0037	7000	26	
3	Munirabad (MRB) - Hospete (HPT)	OUT OF PARALLELISM				
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नरेश भंडारी/NARESH BHANDARI मृख्य अभियन्ता/Chief Engineer केन्द्रीय विशुत प्राधिकरण/C.E.A. विशुत मंत्रालय/Ministry of Power भारत सरकार/Govt. of India मई दिल्ली/New Delly-86

Annexure III

Tele: 23019746

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

B/46937/Sigs 7(b)/944/

06 Mar 2018

Chief Engineer Electricity, State Load Despatch Centre # 28, R.C, Cross Road, Banagalore - 5600009

PROPOSED 220 KV DC LINE USING DRAKE ACSR CONDUCTOR FROM 400/220KV GUDDADAHALLI SS TO PROPOSED 220/110KV KOPPAL RECEIVING STATION FOR DISTANCE OF 11.323KmS IN KOPPAL DISTRICT

- Reference your letter No CEE/SLDC/PTCC/F-2675/-21622 -29 dated
 JAN 2018.
- 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.

(Nainee Sharma)

Lt Col

GSO 1 (Comn) for SO-in-C

Copy to :-

The Director (PTCC)
CEA, Telecom Division, NRPC Complex
18-A Shaheed Jeet Singh Marg
Katwaria Sarai, New Delhi - 110016

- For information.