

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-896/206-308

Date:15.03.2019

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 2 no.s 220 kV DC lines from existing 220/66/11 kV KPTCL SS at Puttenahalli (D.G. Plant) Yelahanka to proposed KPCL 220 kV Gas Power Plant at Puttenahalli in Yelahanka

Reference:

- (i) BSNL letter no. SR-PTCC/SKT-2069/06 dated 16.11.2018
- (ii) South Western Railway letter no. SG/SWR/PTCC/F-2743/1750 dated 27.07.2018
- (iii) Defense letter no. B/46937/Sigs 7(b)/1053 dated 14.05.2018

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 25,000 Ohm-cm. 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

m/c

(Naresh Bhandari)

Copy to:

- 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

ANNEXURE - I

Paristing 220/66/11 kV KPTCL SS at Puttenahalli (D.G. Plant) Yelahanka to proposed KPCL 220 kV Gas Power Plant at Puttenahalli in Yelahanka Total Length: 0.223 km, 0.356 km Soil Resistivity: 25,000 Ohm-cm Length of Parallelism Coupling Fault in Parallelism Coupling Fault					ANNEX	URE – I		
ARRAMARA SARAHLLI (AH) Exge UG cables 1 Exge to Towards Rilway Tracks (SH-SH3) III DASARAHALLI (AH) Exge UG cables 1 Exge to Towards RH7 (AH-AH2) 2 Exge to Towards RH7 (AH-AH2) 3 Exge to Dasarahalli Main Road (DE-DE1) 2 Exge to Dasarahalli Main Road (DE-DE3) 3 Exge to Godrej Housing Complex (AR-AR1) 4 Exge to Sempayra (AR-AR2) 5 Exge to Maruthiwagar RSU (YN-YN1) 5 Exge to Maruthiwagar RSU (YN-YN2) 6 Exge to Maruthiwagar RSU (YN-YN2) 7 Exge to Maruthiwagar RSU (YN-YN2) 8 Exge to Maruthiwagar RSU (YN-YN3) 9 Exge to Maratagar (YN-YN4) 9 Exge to Marasandra (RJN-RJN1) 1 V LESS THAN 430 V 2 Exge to Coffee Board side (DE-DE2) 3 Exge to Bellay Road (DE-DE3) IV ASTRAZENLLA DLC (AR) Exge UG cables 1 Exge to Godrej Housing Complex (AR-AR1) 2 Exge to Maruthiwagar RSU (YN-YN2) 3 Exge to Maruthiwagar RSU (YN-YN2) 5 Exge to Maruthiwagar RSU (YN-YN3) 4 Exge to Anantpur (YN-YN4) 5 Exge to Heritage DLC (YN-YN5) VI RAJANKUNTE (RJN) Exge UG cables 1 Exge to Marasandra (RJN-RJN1) 0 OUT OF PARALLELISM	Case I	No.: KNK-896						
BSNL letter no. – SR-PTCC/SKT-2069/06 dated 16.11.2018 BSNL letter no. – SR-PTCC/SKT-2069/06 dated 16.11.2018 I SAHAKARNAGAR (SHNR) Exge UG cables	Name of the Power line: 2 no.s 220 kV DC lines from existing 220/66/11 kV KPTCL SS at Puttenahalli (D.G. Plant) Yelahanka to proposed KPCL 220 kV Gas Power Plant at Puttenahalli in Yelahanka			t) Total Length: 0.223 km, 0.356 km				
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1 Exge to Marasandra (RJN-RJN1) OUT OF PARALLELISM	VI	RAJANKUNTE (RJN) Exge UG cables						
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	2	Exge to Yelahanka (RJN-RJN2)						
			11					

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

ANNEXURE - II

Name of the Power line: 2 no.s 220 kV DC lines from

existing 220/66/11 kV KPTCL SS at Puttenahalli (D.G. Plant) Yelahanka to proposed KPCL 220 kV Gas Power Plant at

Puttenahalli in Yelahanka

Case No.: KNK-896

Map Scale : 1cm=500mts Total Length : 0.223 km, 0.356 km Soil Resistivity: 25,000 Ohm-cm

S.No. Telecom. Details Length of Parallelism Coupli in Km.	
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	SOUTH WESTERN RAILWAY letter no SG/	SWR/PTCC/F-27	43/1750 date	d 27.07.2018	
1	Yelahanka (YNK) – Rajankunte (RNN)	0.1	0.0013	10000	13

नरेश भंडारी/NARESH BHANDARI मुख्य अभियन्ता/Chief Engineer कन्दीय विद्युत प्राधिकरण/C.E.A. विद्युत मंत्रालय/Ministry of Power भारत सरकार/Govt. of India नई दिल्ली/New Delni-86

Annex-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)/1053 /

4 May 2018

Chief Engineer (Electricity) State Load & Despatch Centre, #28, R.C. Cross Road, Bengaluru - 560009

PROPOSED 220KV DC LINE FROM EXISTING 220/66/11KV KPTCL SS AT PUTTENAHALLI (D.G.; PLANT) YELAHANKA ATO PROPOSED KP[CL 220KV GAS POWER PLANT AT PUTTENAHALLI IN YELAHANKA BANGALORE URBAN DIST.

- Reference your letter No. CEE/SLDC/PTCC/F-2743/26047-54 DT 17 Mar 2018.
- 2. No Objection Certificate (NOC) is accorded based on inputs provided vide Map sheet received under your letter mentioned above.
- Documents alongwith map sheets (in original) are returned herewith for your further necessary action.

(AV Umdekar) Lt Col GSO 1 (Comn) for SO-in-C

Copy to :-

Chief Engineer (PTCC), Chief Electrical authority, NREB Complex, 18A, Shaheed Jeet Singh Marg, Block A, Katwaria Sarai, New Delhi – 110016