



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/TNG-57/114-115

Date : 24.01.2019

The Divisional Engineer Telecom (PTCC),
QA & Inspection (T&D) circle, BSNL,
1st floor, Raj Bhavan Exchange,
No.26, Sardar Patel Road,
Guindy, Chennai-600032

Subject: Induced Voltage Calculation in respect of PTCC proposal for 400 kV TMDC LILO from both circuits of 400 kV TMDC Gajwel to Bhoopalapally (KTPP) line to proposed 400/13.8/11 kV Chandulapur SS – LINE OUT

Reference: i) BSNL letter no. SR-PTCC/STS-2100/04 dated 20.12.2018
ii) South Central Railway letter no. SG.85/4/3/PTCC/SCRTS201822 RC dated 30.04.2018
iii) Defense letter no. B/46937/Sigs 7(b)/1096 dated 28.07.2018

Sir,

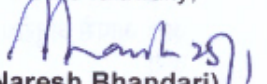
The instant PTCC proposal has been examined. The low frequency induction on telecom cables of BSNL with respect to details furnished vide above references have been computed. The Soil Resistivity (SR) value has been taken as 10,000 Ohm-cm and 30,000 Ohm-cm, as intimated by the Power authority (TSTRansco). The voltages likely to be induced on paralleling telecom cables of BSNL under Single Line to Ground fault condition are enclosed at Annex-I. The screening factors, as applicable, have been considered. Vide ref. (ii) above, South Central Railway have issued No Objection Certificate (NOC) (enclosed as Annex – II). 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

Yours faithfully,

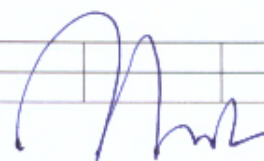

(Naresh Bhandari)
Chief Engineer

Copy to:
Chief Engineer, Lift Irrigation Schemes, TSTRANSCO, Vidyut Soudha, Hyderabad-500082

ANNEXURE – I

Case No.: TNG-57		Map Scale : 1cm=500mts			
Name of the Power line: 400 kV TMDC LILO from both circuits of 400 kV TMDC Gajwel to Bhoopalapally (KTPP) line to proposed 400/13.8//11 kV Chandulapur SS – LINE OUT		Total Length : 26.445 Km.			
		Soil Resistivity : 10000 ohm-cm, 30000 ohm-cm			
	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.

BSNL letter no. – SR-PTCC/STS-2100/04 dated 20.12.2018					
A	Duddeda Exchange				
1	Exchange to Z17 – DP 143	IV LESS THAN 430 V			
2	Exchange to Z17 – DP 144				
3	Exchange to Z18 – DP 141				
4	Exchange to Z18 – DP 142				
5	Exchange to Z19 – DP 145				
6	Exchange to Z19 – DP 146				
B	Chinnakodur Exchange				
1	Exchange to D1 – DP 26	IV LESS THAN 430 V			
2	Exchange to D1 – DP 27				
3	Exchange to D1 – DP 28				
4	Exchange to D1 – DP 29				
5	Exchange to D1 – DP 30				
6	Exchange to D2 – DP 21				
7	Exchange to D2 – DP 22				
8	Exchange to D2 – DP 23				
9	Exchange to D2 – DP 24				
10	Exchange to D2 – DP 25				
11	Exchange to C1 – DP 11				
12	Exchange to C1 – DP 12				
13	Exchange to C1 – DP 13				
14	Exchange to C1 – DP 14				
15	Exchange to C1 – DP 15				
16	Exchange to C2 – DP 16				
17	Exchange to C2 – DP 17				
18	Exchange to C2 – DP 18				
19	Exchange to C2 – DP 19				
20	Exchange to C2 – DP 20				
21	Exchange to B	2.5	0.0421	15000	632
22	B – DP 1	OUT OF PARALLELISM			
23	B – DP 2				
24	B – DP 3				
25	B – DP 4				
26	B – DP 5				
27	B – DP 6				
28	B – DP 7				
29	B – DP 8				
30	B – DP 9				
31	B – DP 10				

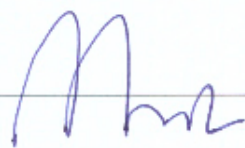


नरेश भंडारी / NARESH BHANDARI
 मुख्य अभियन्ता / Chief Engineer
 केन्द्रीय विद्युत प्राधिकरण / C.E.A.
 विद्युत मंत्रालय / Ministry of Power
 भारत सरकार / Govt. of India

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		Soil Resistivity : 10000 ohm-cm, 30000 ohm-cm			
	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.

C	Ibrahimnagar Exchange				
1	Exchange to U1-DP 72	IV LESS THAN 430 V			
2	Exchange to U1-DP 73				
3	Exchange to U1-DP 74				
4	Exchange to U1-DP 75				
5	Exchange to U1-DP 76				
6	Exchange to U2-DP 77				
7	Exchange to U2-DP 78				
8	Exchange to U2-DP 79				
9	Exchange to U2-DP 80				
10	Exchange to U2-DP 81				
11	Exchange to T1-DP 111				
12	Exchange to T1-DP 112				
13	Exchange to T1-DP 113				
14	Exchange to T1-DP 114				
15	Exchange to T1-DP 115				
16	Exchange to T2-DP 81a				
17	Exchange to T2-DP 82				
18	Exchange to T2-DP 83				
19	Exchange to T2-DP 84				
20	Exchange to T2-DP 85				
D	Rajagopalpet Exchange				
1	Exchange to Z12 – DP r1	IV LESS THAN 430 V			
2	Exchange to Z12 – DP r2				
3	Exchange to Z12 – DP r3				
4	Exchange to Z13 – DP 127				
5	Exchange to Z13 – DP 128				
6	Exchange to Z13 – DP 129				
7	Exchange to Z14 – DP 130				
8	Exchange to Z14 – DP 131				
9	Exchange to Z11 – DP 116				
10	Exchange to Z11 – DP 117				
11	Exchange to Z11 – DP 118				
12	Exchange to Z11 – DP 119				
13	Exchange to Z11 – DP 120				
14	Exchange to Z11 – DP 121				
15	Exchange to Z11 – DP 122				
16	Exchange to Z11 – DP 123				
17	Exchange to Z11 – DP 124				
18	Exchange to Z11 – DP 124a				
19	Exchange to L5 – DP p 1				
20	Exchange to L5 – DP p 2				
21	Exchange to L5 – DP p 3				



नरेश भंडारी / NARESH BHANDARI
 मुख्य अभियन्ता / Chief Engineer
 केन्द्रीय विद्युत प्राधिकरण / C.E.A.
 विद्युत मंत्रालय / Ministry of Power
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		Soil Resistivity : 10000 ohm-cm, 30000 ohm-cm	
	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.
			Effective Fault current in Amps.
			I.V in Volts.

22	Exchange to L5 – DP p 4	IV LESS THAN 430 V		
23	Exchange to L5 – DP p 5			
24	Exchange to L5 – DP p 6			
25	Exchange to L5 – DP p 7			
26	Exchange to L5 – DP p 8			
27	Exchange to L5 – DP p 9			
28	Exchange to L5 – DP p 10			
E	Nagunur Exchange			
1	Exchange to Z24 – DP m1	OUTSIDE IV CALCULATION CONSIDERATION ZONE		
2	Exchange to Z24 – DP m2			
3	Exchange to Z24 – DP m3			
4	Exchange to Z225 – DP m4			
5	Exchange to Z25 – DP m5			
6	Exchange to Z22 – DP m6	IV LESS THAN 430 V		
7	Exchange to Z22 – DP m7			
8	Exchange to Z27 – DP m15	OUTSIDE IV CALCULATION CONSIDERATION ZONE		
9	Exchange to Z27 – DP m16			
10	Exchange to Z31 – DP m8	IV LESS THAN 430 V		
11	Exchange to Z231 – DP m9			
12	Exchange to Z29 – DP 10			
13	Exchange to Z29 – DP m11			
14	Exchange to Z30 – DP m13	OUTSIDE IV CALCULATION CONSIDERATION ZONE		
15	Exchange to Z30 – DP m14			
F	Siddipet RBM Exchange			
1	Exchange to Mittapally	IV LESS THAN 430 V		
5	Exchange to Narsapur			
G	Siddipet MBM Exchange			
19	Exchange to Ayyappa temple reddy daba	IV LESS THAN 430 V		
20	Exchange to Narsapur X Road			



नरेश भंडारी/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

Annex-II



Request No 104257

दक्षिणमध्यरेलवे

South Central Railway

मुख्यालयकार्यालय, सिगनलएवंदूरसंचारशाखा, रेलनिलयम,सिकंदराबाद- 500025

Head Quarters Office, Signal & Telecomm Branch, Rail Nilayam, Secunderabad -500025

No. SG.85/4/3/PTCC/SCRTS201821 RC

Date:30.04.2018

Divisional Engineer Telecom,
PTCC, Southern Region, T&D Circle,
Rajbhavan Exchange, 1st Floor, No.26,
Sardar Patel Road, Guindy,
Chennai- 600 032.

Sub: Erection of 400kV TMDC LILo from both circuits of 400kV TMDC Gajwel to Bhoopalapally (KTPP) line to proposed 400/13.8/11kV Chandulapur SS of length 41X2=82Km under Kaleshwaram Lift Irrigation Scheme - LINE OUT (26.445KM). - PTCC Proposal - Railway Telecom Clearance- Reg

Ref: Chief Engineer/Lift Irrigation Schemes/TSTRANSCO Lr No:
CE(LIS)/ SE(LI)/DE4(LI)/ADE1/AE/PTCC/400kV Ch.pur/D.No.346/
2018, dated_06.04.2018.

* * *

उक्त संदर्भाधीन पत्र के अनुसार चूँकि, अधीक्षक इंजीनियर, एलआईएस/हैदराबाद टीएस ट्रान्सको, ने यह प्रमाणित किया है कि प्रस्तावित लाइन के 8 किमी के आसपास के क्षेत्र में रेल की पट्टी नहीं है अतः उक्त पीटीसीसी प्रस्ताव को निपटाने में इस रेलवे को कोई आपत्ति नहीं है.

With reference to the above cited letter, since it is certified by Superintending Engineer, LIS/Hyderabad-Rural TSTRANSCO,Erragadda, Hyderabad that the Railway line does not exists within 8 kms vicinity of the proposed power line, this Railway has **NO OBJECTION** in clearing the above said PTCC proposal.

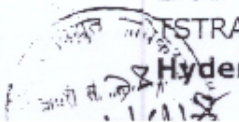
(पी.किशोरकुमार) P.Kishore Kumar
वसिदूइंजी/टेली/प्रका SSTE/TELE/HQ

कृते महाप्रबंधक/सिवदू FOR GENERAL MANAGER / S & T

Copy to:

✓ The Director (PTCC),
Central Electricity Authority,
Load Despatch & Telecom Division,
NRPC Complex, 18-A
Shaheed jeet singh S.Marg
Katwaria Sarai, New Delhi- 110016.

1 Chief Engineer,
Lift Irrigation Schemes,
TSTRANSCO, Vidyuth Soudha,
Hyderabad - 500 082.



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)/1096 /

26 Jul 2018

Chief Engineer
Lift Irrigation Schemes
TSTRANSCO,
Vidyut Soudha,
Hyderabad-500 082

**ERECTION OF 400KV TMDC LIL⁰ FROM BOTH CIRCUITS OF 400KV TMDC
GAJWEL TO BHOOPALAPALLY (KTPP) LINE TO PROPOSED 400/13.8/11 KV
CHANDULAPUR SS OF LENGTH 41X2=82Km UNDER KALESHWARAM
LIFT IRRIGATION SCHEME - LINE OUT (26.445 Km)**

1. Reference your letter No CE(LIS)/SE (LI)/DE4(LI)/ADE1/AE/PTCC/400KV Ch.Pur/D.No.346/2018,dt 06 Apr 2018 (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

Copy to :-

✓ Central Electricity Authority
Power Communication Development Division
NRPC Complex, 18-A, Shaheed Jeet Singh S Marg
Katwaria Sarai, New Delhi - 110016

- For information.