



भारत सरकार

Government of India

विद्युत मंत्रालय

Ministry of Power

केन्द्रीय विद्युत प्राधिकरण

Central Electricity Authority

पावर कम्युनिकेशन डेवलपमेंट प्रभाग

Power Communication Development Division

No./CEA/PCD/PTCC/TNG-58 /116-112

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 IN

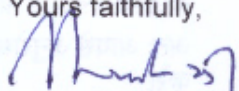
Reference: i) BSNL letter no. SR-PTCC/STS-2099/06 dated 19.12.2018
ii) South Central Railway letter no. SG.85/4/3/PTCC/SCRTS201821 RC dated 30.04.2018
iii) Defense letter no. B/46937/Sigs 7(b)/1095 dated 02.08.2018

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

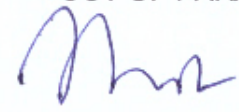
ANNEXURE - I

Case No.: TNG-58	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 IN	Total Length : 27.912 Km.
	Soil Resistivity : 10000 ohm-cm, 30000 ohm-cm

S.No	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.
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BSNL letter no. – SR-PTCC/STS-2099/06 dated 19.12.2018

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	2.8	0.0470	12000	564
2	D1 – DP 26	OUT OF PARALLELISM			
3	D1 – DP 27				
4	D1 – DP 28				
5	D1 – DP 29	0.2	0.0036	12000	43
6	D1 – DP 30	OUT OF PARALLELISM			
7	Exchange to D2 – DP 21	IV LESS THAN 430 V			
8	Exchange to D2 – DP 22				
9	Exchange to D2 – DP 23				
10	Exchange to D2 – DP 24				
11	Exchange to D2 – DP 25				
12	Exchange to C1 – DP 11				
13	Exchange to C1 – DP 12				
14	Exchange to C1 – DP 13				
15	Exchange to C1 – DP 14				
16	Exchange to C1 – DP 15				
17	Exchange to C2 – DP 16				
18	Exchange to C2 – DP 17				
19	Exchange to C2 – DP 18				
20	Exchange to C2 – DP 19				
21	Exchange to C2 – DP 20				
22	Exchange to B	2.7	0.0392	15000	588
23	B – DP 1	OUT OF PARALLELISM			
24	B – DP 2				
25	B – DP 3				
26	B – DP 4				
27	B – DP 5				
28	B – DP 6				
29	B – DP 7				
30	B – DP 8				
31	B – DP 9				
32	B – DP 10				



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

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C	Ibrahmnagar 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	3.5	0.0672	7500	504
5	Z13 – DP 127	0.2	0.0005	7500	4
6	Z13 – DP 128	OUT OF PARALLELISM			
7	Z13 – DP 129	0.2	0.0006	7500	5
8	Exchange to Z14	5.9	0.0796	7500	597
9	Z14 – DP 130	OUT OF PARALLELISM			
10	Z14 – DP 131	0.1	0.0003	7500	2
11	Exchange to Z11 – DP 116				IV LESS THAN 430 V
12	Exchange to Z11 – DP 117				
13	Exchange to Z11 – DP 118				
14	Exchange to Z11 – DP 119				
15	Exchange to Z11 – DP 120				
16	Exchange to Z11 – DP 121				
17	Exchange to Z11 – DP 122				
18	Exchange to Z11 – DP 123				
19	Exchange to Z11 – DP 124				
20	Exchange to Z11 – DP 124a				
21	Exchange to L5 – DP p 1				



IV LESS THAN 430 V

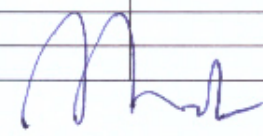
नरेश भंडारी / NARESH BHANDARI
 मुख्य अभियन्ता / Chief Engineer
 केन्द्रीय विद्युत प्राधिकरण / C.E.A.
 विद्युत मंत्रालय / Ministry of Power

ANNEXURE - I

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	Soil Resistivity : 10000 ohm-cm, 30000 ohm-cm

S.No	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.
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22	Exchange to L5 – DP p 2	IV LESS THAN 430 V			
23	Exchange to L5 – DP p 3				
24	Exchange to L5 – DP p 4				
25	Exchange to L5 – DP p 5				
26	Exchange to L5 – DP p 6				
27	Exchange to L5 – DP p 7				
28	Exchange to L5 – DP p 8				
29	Exchange to L5 – DP p 9				
30	Exchange to L5 – DP p 10				
E	Nagunur Exchange	IV LESS THAN 430 V			
1	Exchange to Z24 – DP m1				
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				
7	Exchange to Z22 – DP m7				
8	Exchange to Z27 – DP m15				
9	Exchange to Z27 – DP m16				
10	Exchange to Z31 – DP m8				
11	Exchange to Z231 – DP m9				
12	Exchange to Z29 – DP 10				
13	Exchange to Z29 – DP m11				
14	Exchange to Z30 – DP m13				
15	Exchange to Z30 – DP m14				
F	Siddipet RBM Exchange	OUT OF PARALLELISM IV LESS THAN 430 V			
1	Exchange to Mittapally				
5	Exchange to Narsapur				
G	Siddipet MBM Exchange	IV LESS THAN 430 V			
19	Exchange to Ayyappa temple reddy daba				
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 104256

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 IN (27.912KM). - 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.348/A/
2018, dated 06.04.2018.

* * *

उक्त संदर्भाधीन पत्र के अनुसार चूँकि, अधीक्षक इंजीनियर, एलआईएस/हैदराबाद टीएस ट्रान्स्को, 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
वसिदूङ्गी/टेली/प्रका SSTE/TELE/HQ

कृते महाप्रबंधक/सिवदू FOR GENERAL MANAGER / S & T

Copy to:

1. **The Director (PTCC),**
Central Electricity Authority,
Load Despatch & Telecom Division,
NRPC Complex, 18-A
Shaheed jeet singh S.Marg
Katwaria Sarai, **New Delhi- 110016.**
2. **Chief Engineer,**
Lift Irrigation Schemes,
TSTRANSCO, Vidyuth Soudha,
Hyderabad - 500 082.

Tele : 23019746

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

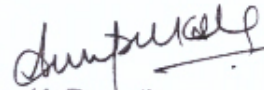
B/46937/Sigs 7(b)/1095

02 Aug 2018

Chief Engineer
Transmission Corporation of Telangana Ltd
Lift Irrigation Schemes
TSTRANSCO,
Vidyut Soudha
Hyderabad - 500 082

**ERECTION OF 400KV TMDC LILO 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 IN (27.912Km)**

1. Reference your letter Lr. No. CE(LIS)/SE(LI)/DE4(LI)/ADE1/AE/PTCC/400KV Ch.PUR/D.No.348/A/2018,dt 06 Apr 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 :-

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

- For information.