



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-54 /65-67

Date : 17.01.2019

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
(i) 400kV QMDC line from 400/13.8/11 kV Ramadugu SS to proposed 400/11 kV Tippapur SS
(ii) 400kV QMDC line from proposed 400/11 kV Tippapur SS to 400/11 kV Chandulapur SS

Reference: i) BSNL letter no. SR-PTCC/STS-2103/13 dated 18.12.2018
ii) BSNL letter no. SR-PTCC/STS-2087/07 dated 18.12.2018
iii) South Central Railway letter no. SG.85/4/3/PTCC/SCRTS201855 RTD dated 15.11.2018
iv) Defense letter no. B/46937/Sigs 7(b)/1099 dated 26.07.2018


Sir,
The instant PTCC proposal has been examined. The low frequency induction on telecom cables of BSNL and Block and Telecom circuits of South Central Railway with respect to details furnished vide above references have been computed. The Average Soil Resistivity (SR) value has been taken as 40,000 Ohm-cm, as intimated by the Power authority (TSTRANSCO). The voltages likely to be induced on paralleling telecom cables of BSNL and Block & Telecom circuits of South Central Railway under Single Line to Ground fault condition are enclosed at Annex-IA, IB and 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

Yours faithfully,


(Naresh Bhandari)
Chief Engineer

Copy to:

- GM(S&T), South Central Railway, Head Quarters Office, Signal & Telecomm Branch, Rail Nilayam, Secunderabad – 500025 (Annexure II only)
- Executive Director, Lift Irrigation Schemes, TSTRANSCO, Vidyut Soudha, Hyderabad-500082

ANNEXURE - IA

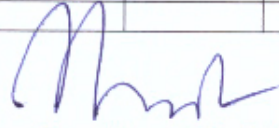
Case No.: TNG-54		Map Scale : 1cm=500mts			
Name of the Power line: 400kV QMDC line from 400/13.8/11 kV Ramadugu SS to proposed 400/11 kV Tippapur SS		Total Length : 45.968 Km.			
		Avg Soil Resistivity : 40000 ohm-cm			
S.No	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.

BSNL letter no. – SR-PTCC/STS-2103/13 dated 18.12.2018					
Gopalropet Exchange					
1	Exchange to Gopalraopeta Local	IV LESS THAN 430 V			
2	Exchange to Gundi				
3	Exchange to Laxmipur	2.4	0.0690	15000	1035
4	Exchange to Laxmipur	2.1	0.0699	15000	1049
Gangadhara Exchange					
1	Exchange to Gangadhara X Road	IV LESS THAN 430 V			
2	Exchange to Gandhara X Road				
3	Exchange to Gandhara X Road				
4	Exchange to Gandhara X Road				
5	Exchange to Gandhara X Road				
6	Exchange to Namalikonda				
7	Exchange to Namalikonda				
8	Exchange to Narayanapur				
9	Exchange to Narayanapur				
10	Exchange to Narayanapur				
11	Exchange to Gangadhara Village				
12	Exchange to Kurikyala				
13	Exchange to Mallapur				
Ramadugu Exchange					
1	Exchange to Srirampalli X Road	IV LESS THAN 430 V			
2	Exchange to Choppadandi X Road				
3	Exchange to MRO Office				
4	Exchange to MRO Office				
Vedhira Exchange					
1	Exchange to Vedhira Local	IV LESS THAN 430 V			
2	Exchange to Deshirajpalli				
Ellandakunta Exchange					
1	Exchange to DP	IV LESS THAN 430 V			
2	Exchange to DP				
3	Exchange to DP				
4	Exchange to DP				
5	Exchange to DP				
6	Exchange to DP				
Galipally Exchange					
1	Exchange to DP	IV LESS THAN 430 V			
2	Exchange to DP				

ANNEXURE - IA

Case No.: TNG-54		Map Scale : 1cm=500mts			
Name of the Power line: 400kV QMDC line from 400/13.8/11 kV Ramadugu SS to proposed 400/11 kV Tippapur SS		Total Length : 45.968 Km.			
		Avg Soil Resistivity : 40000 ohm-cm			
S.No	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.

3	Exchange to DP	IV LESS THAN 430 V			
4	Exchange to DP				
Cheerlavancha Exchange					
1	Exchange to DP	IV LESS THAN 430 V			
2	Exchange to DP				
3	Exchange to DP				
4	Exchange to DP				
Boinpalli Exchange					
1	Exchange to DP	IV LESS THAN 430 V			
2	Exchange to DP				
3	Exchange to DP				
4	Exchange to DP				
5	Exchange to DP				



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

ANNEXURE - I B

Case No.: TNG-54		Map Scale : 1cm=500mts			
Name of the Power line: 400kV QMDC line from proposed 400/11 kV Tippapur SS to 400/11 kV Chandulapur SS		Total Length : 19.096 Km.			
		Avg Soil Resistivity : 40000 ohm-cm			
S.No	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.

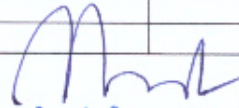
BSNL letter no. - SR-PTCC/STS-2087/07 dated 18.12.2018

A	Ibrahimgar Exchange				
1	Exchange to U1-DP 72				
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 T2-DP 81a				
12	Exchange to T2-DP 82				
13	Exchange to T2-DP 83				
14	Exchange to T2-DP 84				
15	Exchange to T2-DP 85				
					IV LESS THAN 430 V
B1	Chinnakodur Exchange				
1	Exchange to D1-DP26				
2	Exchange to D1-DP27				
3	Exchange to D1-DP28				
4	Exchange to D1-DP29				
5	Exchange to D1-DP30				
6	Exchange to D2-DP21				
7	Exchange to D2-DP22				
8	Exchange to D2-DP23				
9	Exchange to D2-DP24				
10	Exchange to D2-DP25				
11	Exchange to C1-DP11				
12	Exchange to C1-DP12				
13	Exchange to C1-DP13				
14	Exchange to C1-DP14				
15	Exchange to C1-DP15				
16	Exchange to C2-DP16				
17	Exchange to C2-DP17				
18	Exchange to C2-DP18				
19	Exchange to C2-DP19				
20	Exchange to C2-DP20				
21	Exchange to B-DP1				
22	Exchange to B-DP2				
23	Exchange to B-DP3				
24	Exchange to B-DP4				
					IV LESS THAN 430 V

ANNEXURE - I B

Case No.: TNG-54		Map Scale : 1cm=500mts			
Name of the Power line: 400kV QMDC line from proposed 400/11 kV Tippapur SS to 400/11 kV Chandulapur SS		Total Length : 19.096 Km.			
		Avg Soil Resistivity : 40000 ohm-cm			
S.No	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.

25	Exchange to B-DP5	IV LESS THAN 430 V			
26	Exchange to B-DP6				
27	Exchange to B-DP7				
28	Exchange to B-DP8				
29	Exchange to B-DP9				
30	Exchange to B-DP10				
C	Siddipett Exchange	OUT OF PARALLELISM			
1	Exchange to Old Bus-stand				
2	Exchange to Siddipet Public School				
3	Exchange to Isolated Pillar Busdepot				
4	Exchange to Saibaba Temple & Hanuman nagar				
5	Exchange to Patel Company				
6	Exchange to Kaderpura				
7	Exchange to Court				
8	Exchange to Yellamma Temple				
9	Exchange to Ayyappa Reddy daba				
10	Exchange to Narsapur X Road				
11	Exchange to Bata Showroom				
12	Exchange to Ramadevi Hospital				
13	Exchange to Andhra Bank				
D	Ellandakunta Exchange	IV LESS THAN 430 V			
1	Exchange to DP				
2	Exchange to DP				
3	Exchange to DP				
4	Exchange to DP				
5	Exchange to DP				
6	Exchange to DP				

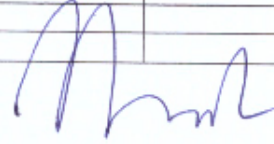


नरेश भंडारी / NARESH BHANDARI
 मुख्य अभियन्ता / Chief Engineer
 केन्द्रीय विद्युत प्राधिकरण / C.E.A.
 विद्युत मंत्रालय / Ministry of Power
 भारत सरकार / Govt. of India
 नई दिल्ली / New Delhi-66

ANNEXURE – II

Case No.: TNG-54					
Name of the Power line: (i) 400kV QMDC line from 400/13.8/11 kV Ramadugu SS to proposed 400/11 kV Tippapur SS (ii) 400kV QMDC line from proposed 400/11 kV Tippapur SS to 400/11 kV Chandulapur SS		Map Scale : 1cm=500mts Total Length : 45.968 Km. Avg Soil Resistivity : 40000 ohm-cm			
S.No	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.

SOUTH CENTRAL RAILWAY letter no. – SG.85/4/3/PTCC/SCRTS201855 RTD dated 15.11.2018					
1	Karimnagar (KRMR) – Gangadhara (GDRA)	2.05	0.0055	11000	61
2	Gangadhara (GDRA) – Lingampet Jagityal (LPJL)	OUT OF PARALLELISM			0



नरेश भंडारी/NARESH BHANDARI
मुख्य अभियन्ता/Chief Engineer
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विद्युत मंत्रालय/Ministry of Power
भारत सरकार/Govt. of India
नई दिल्ली/New Delhi-66

Tele : 23019746

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

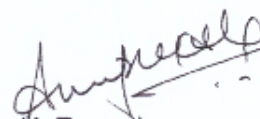
B/46937/Sigs 7(b)/1099 /

26 Jul 2018

Executive Director
Lift Irrigation Schemes
TSTRANSCO,
Vidyut Soudha,
Hyderabad-500 082

**ERECTION OF (i) 400KV QMDC LINE FROM 400/13.8/1KV RAMADUGU
SUBSTATION TO 400/11KV TIPPAPUR SS OF LENGTH 21 Km. (II) 400KV
QMDC LINE FROM 400/11KV TIPPAPUR SS TO 400/13.8/11KV CHANDULAPUR SS
OF LENGTH =50 KM UNDER KALESHWARAM
LIFT IRRIGATION SCHEME**

1. Reference your letter No. Lr. No. ED(LIS)/SE(LI)/DE1/ADE-4/PTCC/400KV Tippapur/D.No. 359/2018 dt 6 Apr 2018.
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.