



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/TRI-01/165-187

Date: 11.02.2019

DET (PTCC), Eastern Zone,
Inspection & QA Circle, BSNL
Q.A. Bhawan, EP-GP Block, Sector-V,
Salt Lake, Kolkata – 700091

Subject: PTCC Route Approval for Surajmaninagar – P.K. Bari 400 kV D/C Transmission Line

Reference: (i) BSNL letter no. DE/PTCC/ER/EME 2104201811630/01 dated 21.06.2018
(ii) Northeast Frontier Railway letter no. N/146/2/10 Pt. VI (TC) dated 30.11.2018
(iii) Defense letter no. B/46937/Sigs 7(b)/1094 dated 31.07.2018

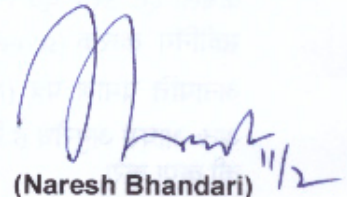
Sir,

The instant PTCC proposal has been examined. Low frequency induction on paralleling cables of BSNL and Block & Telecom Circuits of Northeast Frontier Railway with respect to details furnished vide above references has been computed. The average Soil Resistivity (SR) value has been taken as 1,00,000 ohm-cm, as intimated by the power authority. The voltages likely to be induced on paralleling telecom cables of BSNL and Block and Telecom Circuits of Northeast Frontier Railway under single line to ground fault condition have been computed and are enclosed as Annex – I 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 issue PTCC route approval.

Encl.: As above

m/c


(Naresh Bhandari)
Chief Engineer

Copy to:

- (i) GM (S&T), North East Frontier Railway, Maligaon, Guwahati, Assam - 781011 – (Annex – II only)
(iii) Line Manager, NER-II Transmission Limited, C/o Tripura Furniture, 2nd Floor, Math Chowmuhani, Opposite ISKCON Temple, Agartala – 799001 (West Tripura)

ANNEXURE - I

Case No.: TRI-01					
Name of the Power line: Surajmaninagar – P.K. Bari 400 kv D/C Transmission Line		Map Scale : 1cm=500mts Total Length : 77.109 Km. Avg Soil Resistivity : 100000 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 DETAIL Ref. No: DE/PTCC/ER/EME 2104201811630/01 dated 21.06.2018					
1	KHUMULWNG TELEPHONE EXCHANGE				
a	Khumulwng Telephone exchange to Forest Office - 50 pair O/H cable, distance= 0 7 km (no pillar)	IV LESS THAN 430 V			
b	Khumulwng Telephone exchange to Hospital - 5 pair O/H cable distance= 0.15 km (no pillar)				
c	Forest Office to TSECL - 5 pair O/H cable, distance= 0 15 km				
d	Forest Office to PWD - 5 pair O/H cable, distance= 0 15 km				
e	PWD to PS - 5 pair O/H cable. distance= 0.15 km				
f	PWD to Homoeopathic Hospital - 5 pair O/H cable, distance= 0.15 km				
2	BODHJUNGNAGAR TELEPHONE EXCHANGE				
a	Bodhjunnagar Telephone exchange to NEEPCO Gate - 50 pair U/G cable distance= 2 km (no pillar)	OUT OF IV CALCULATION CONSIDERATION ZONE			
b	NEEPCO Gate to Shova Company - 100 pair U/G cable, distance= 1 25 km (no pillar)				
c	NEEPCO Gate to PS - 100 pair O/H cable, distance= 0 7 km (no pillar)				
3	NIT TELEPHONE EXCHANGE				
a	NIT Telephone exchange to Gramin Bank - 50 pair U/G cable, distance= 2 km (no pillar)	IV LESS THAN 430 V			
b	NIT Telephone exchange to SBI - 10 pair U/G cable, distance= 1.5 km (no pillar)				
c	NIT Telephone exchange to Main Building - 10 pair O/H cable, distance= 0 08 km (no pillar)				
d	NIT Telephone exchange to Management College - 5 pair O/H cable, distance= 0.9 km (no pillar)				
4	ANANDANAGAR TELEPHONE EXCHANGE				
a	Anandanagar Telephone exchange to By pass near Railway bridge - 100 pair U/H cable, distance= 3.5 km (no pillar)	OUT OF PARALLELISM			
b	Anandanagar Telephone exchange to Anandanagar Bazar - 100 pair U/G cable distance= 2.0 km (no pillar)				
c	Anandanagar Bazar to Sreenagar P.S - 30 pair U/G cable distance= 2 0 km				
d	Anandanagar Bazar to Shyamaprasad - 50 pair U/G cable. distance= 1 5 km				

ANNEXURE - I

Case No.: TRI-01					
Name of the Power line: Surajmaninagar – P.K. Bari 400 kv D/C Transmission Line		Map Scale : 1cm=500mts Total Length : 77.109 Km. Avg Soil Resistivity : 100000 ohm-cm			
S.No	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.

e	In between (Oriapara) Anandanagar Bazar to Shyamaprasad-50 pair U/G cable, distance=0.7km	OUT OF PARALLELISM			
f	Anandanagar Telephone exchange to 6 No Para (East Side) - 20 pair O/G cable distance= 1 5 km (no pillar)				
g	Primary health centre to Roy para - 20 pair U/G cable, distance= 1 0 km (no pillar)				
h	Anandanagar Bazar to 9 no para - 50 pair U/G cable distance=1 5 km (no pillar)				
5 BIRENDRANAGAR (JIRANIA) TELEPHONE EXCHANGE					
a	Birendranagar (Jirania) Telephone exchange to Hospital Cabinet (Block Chowmuhani) - 400 pair (1), 100 pair (1), 200 pair (1) U/G cable, distance= 1 25 km	IV LESS THAN 430 V			
b	Block Chowmuhani Pillar to Bazaar (ADC Chowmuhani) - 200 pair (1), 100 pair (1). 50 pair (1) U/G cable, distance= 0 5 km				
c	ADC Pillar to Bashkobra 50 pair (1), 100 pair (1) U/G Cable				
d	Block Chowmuhani Pillar to Champaknagar - 50 pair (1), 100 pair (1) U/G Cable distance= 5km				
e	Hospital Pillar to Daspara - 100 pair U/G cable, distance= 1 km				
f	Birendranagar (Jirania) Telephone exchange to College Chowmuhani - 400 pair (1), 100 pair (1), 200 pair (1) U/G cable distance= 1 5 km				
6 RANIRBAZAR TELEPHONE EXCHANGE					
a	Ranirbazar Telephone exchange to MNP - 200 pair (1) O/H cable, distance= 4 km (Pillar 1)	IV LESS THAN 430 V			
b	Mohanpur to Harijoy Para - 50 pair (1) O/H cable, distance= 4 km (D.P. 5)				
c	Ranirbazar Telephone exchange to Dhan Chowmuhani - 800 pair U/G cable, distance= 6 km (Pillar)				
d	Distribution Cable 100 pair (2), 50 pair (1) O/H Cable				
e	Distribution Cable towards Khayerpur 400 pair O/H Cable				
f	Khayerpur to Chanpur 50 pair (1) O/H Cable				

ANNEXURE - I

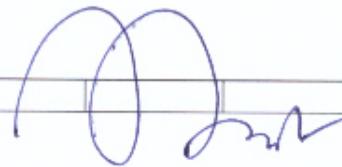
Case No.: TRI-01					
Name of the Power line: Surajmaninagar – P.K. Bari 400 kv D/C Transmission Line		Map Scale : 1cm=500mts Total Length : 77.109 Km. Avg Soil Resistivity : 100000 ohm-cm			
S.No	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.

g	Khayerpur to Old Agartala Pillar 200 pair (1) O/H Cable	IV LESS THAN 430 V			
h	Old Agartala Pillar to Nath Tilla 50 pair (1) O/H Cable distance= 1.5km				
i	Old Agartala Pillar to Champamura 50 pair (1) O/H Cable distance= 2 km				
7	KALYANPUR TELEPHONE EXCHANGE				
a	Kalyanpur Telephone exchange to UCO Bank & Kalyanpur High School (pillar) - 100 pair U/G cable, distance= 0.7 km	IV LESS THAN 430 V			
8	TULASHIKHOR TELEPHONE EXCHANGE	NIL			
9	SALEMA TELEPHONE EXCHANGE				
a	Salema telephone exchange to Pillar :- 200 pair U/G Cable, Distance= 0.06KM	IV LESS THAN 430 V			
b	Salema Pillar to Gas Agency :- 100 pair U/G Cable, Distance=3.00KM				
c	Salema Pillar to Bazar .- 50 pair U/G Cable, Distance= 0.50KM				
d	Salema Pillar to Kachucherra :- 50 pair U/G Cable, Distance=5.00KM				
10	82 MILES TELEPHONE EXCHANGE				
a	82 Miles Telephone exchange to Nalkata :- 50 Pair U/G Cable, Distance = 1.00 KM	OUT OF PARALLELISM			
b	82 Miles Telephone exchange to Navodaya School :- 50 Pair U/G Cable, Distance = 0.50 KM				
c	82 Miles Telephone exchange to Post Office :- 100 Pair U/G Cable, Distance = 7.00 KM				
11	KANCHANBARI TELEPHONE EXCHANGE				
a	Kanchanbari Telephone exchange to Bazar Pillar No.21 :- (100+400 Pair) U/G Cable, Distance = 0.50 KM	IV LESS THAN 430 V			
b	Bazar pillar no 21 to Amrapasa Bazar : 100 Pair U/G Cable, Distance = 6.00 KM				
c	Bazar pillar no 21 to Laljori : 50 Pair U/G Cable, Distance = 6.00 KM				
d	Bazar pillar no 21 to Manu river : 100 Pair O/H Cable, Distance = 2.00 KM	OUT OF PARALLELISM			
e	Manu river to Doodhpur : 100 Pair U/G Cable, Distance = 1.00 KM				

ANNEXURE - I

Case No.: TRI-01					
Name of the Power line: Surajmaninagar – P.K. Bari 400 kV D/C Transmission Line		Map Scale : 1cm=500mts Total Length : 77.109 Km. Avg Soil Resistivity : 100000 ohm-cm			
S.No	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.

f	Bazar pillar no 21 to Nepaltila : 100 Pair U/G Cable, Distance = 9.00 KM	IV LESS THAN 430 V			
g	Bazar pillar no 21 to Bolai Bazar : 100 Pair U/G Cable, Distance = 1.50 KM	OUT OF PARALLELISM			
h	Bolai Bazar to Ujan Doodhpur : 50 Pair U/G Cable, Distance = 1.00 KM				
i	Kanchanbari Telephone exchange to Hospital Chaumuhani Cabinete :-100 Pair U/G Cable. Distance = 0.70 KM	IV LESS THAN 430 V			
12 KUMARGHAT TELEPHONE EXCHANGE					
a	Kumarghat telephone exchange to Pillar No.1 :- 800 pair U/G Cable Cable,Distance= 0.60 KM	OUT OF IV CALCULATION CONSIDERATION ZONE			
b	Kumarghat telephone exchange to Kumarghat Bazar Pillar No.2 :- (800+100 pair) U/G Cable Cable, Distance= 1.30KM				
c	Kumarghat Pillar No.1 to Bazar pillar No.2 :- 50 Pair U/G Cable, Distance = 0.70 KM				
d	Bazar Pillar No 2 to Near PGCIL Office :- 100 Pair U/G Cable, distance =3.00 KM				
e	Bazar Pillar No 2 to Kumarghat Police Station :- 100 Pair U/G Cable, distance= 2.00 KM				
f	Bazar Pillar No 2 to Notingchhera Tea Garden :- 100 Pair U/G Cable,distance = 8.00 KM				
g	Bazar Pillar No 2 to Fatikroy :- 200 Pair U/G Cable, distance = 6.00 KM				
h	Bazar Pillar No 2 to Industry :- 100 Pair U/G Cable, distance = 2.00 KM				
i	Bazar Pillar No 2 to Near Petrol Pump (Dharmanagar Road) :- 100 Pair U/G Cable, distance = 2.00 KM				
j	Bazar Pillar No 2 to Darchawi :- 100 Pair U/G Cable, distance = 3.00 KM				
k	Kumarghat Pillar No.1 to Bazar(Via Hospital Road) :- (50X5) Pair U/G Cable,Distance = 1.5 KM				
l	Kumarghat Pillar No.1 to Kailashahar Bridge :- 50 Pair U/G Cable, Distance =2.00 KM L-12				
m	Kumarghat Pillar No.1 to Near Petrol Pump (Dharmanagar Road) :- 50 Pair U/G Cable, Distance = 2.00 KM				



ANNEXURE – II

Case No.: TRI-01					
Name of the Power line: Surajmaninagar – P.K. Bari 400 kV D/C Transmission Line		Map Scale : 1cm=500mts Total Length : 77.109 Km. Avg Soil Resistivity : 100000 ohm-cm			
S.No	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.

NORTHEAST FRONTIER RAILWAY DETAIL Ref. No: N/146/2/10 Pt. VI (TC) dated 30.11.2018					
1	Telimura – Jirania	7.7	0.0151	13000	196
2	Jirania - Agartala	9.5	0.0134	11000	147

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-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)/1094/

31 Jul 2018

NER-II Transmission Ltd.
Line Manager
C/o Tripura Furniture, 2nd Floor
Math Chowmuhani, Opposite Iskcon Temple
Agartala-799001, District West Tripura

**PTCC CLEARANCE FOR 400KV D/C SURAJMANI NAGAR – P.K. BARI
TRANSMISSION LINE AND 132KV D/C AGTPP (NEEPCO) – P.K. BARI (TSECL)
TRANSMISSION LINE**

1. Reference your letter No NER-II/Tripura/PTCC/011 dated 13 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 :-

✓ 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.