



भारत सरकार
Government of India
विद्युत मंत्रालय
Ministry of Power
केन्द्रीय विद्युत प्राधिकरण
Central Electricity Authority
विद्युत संचार विकास प्रभाग
Power Communication Development Division

CEA Case No.: TNG-106 :

PTCC proposal for 400 kV D/C transmission line from 400 kV Kethireddypally S/S to proposed 400/220/132 kV Rayadurg GIS partly through UG cable: 42 km (approx.)

Reference:

S. No.	Reference No.	Dated
(i)	TSTRANSCO:CE/400kV/SE-II/400kV/D1-A4/F.e-EHVT-01/18/D.No. 731/20	15.10.2020
(ii)	BSNL: SR-PTCC/STS-2857/06	17.12.2021
(iii)	South Central Railway: SG.85/4/3/PTCC/SCRSTS202133 RTD	13.12.2021
(iv)	Defense: B/46937/Sigs 7(b)/2277	10.02.2021

The PTCC proposal submitted vide reference (i) has been examined. The low frequency induction on telecom cables of BSNL and Block & Telecom circuits of South Central Railway with respect to details furnished vide above references (ii) and (iii) respectively has been computed. 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 Annexure-I and Annexure-II respectively. The screening factors, as applicable, have been considered. Vide above reference (iv), Defence Authority have issued No Objection Certificate (NOC) (a copy enclosed as Annexure-III).

Taking above into consideration, necessary action for issuance of PTCC route approval may be taken.

Encl.: As above.

Signature Not Verified

Digitally signed by RAGHVEN德拉 PRATAP SINGH
Date: 2021.12.31 12:39:36 IST

Director

To,

1.	Divisional Engineer (PTCC), Southern Zone	BSNL, Inspection Circle, 1st Floor, Raj Bavan Exchange No. 26, Sardar Patel Road, Guindy, Chennai-600032.	Annexure-I & Annexure-III
2.	SSTE/TELE/HQ	SCR, Head Quarters Office, Signal & Telcomm Branch, Rail Nilayam, Secunderabad-500025.	Annexure-II
3.	Chief Engineer/400 kV	TSTRANSCO, Vidyut Soudha, Hyderabad-500082.	Copy for information

EA: TNG-106

(Annexure-I)

Case No. STS 2857		SSA: HYDERABAD			
Name of the power line: Erection of 400KV D/C line from 400KV Kethireddypally SS to proposed 400/220/132 KV Rayadurg GIS partly through U/G cable.					
Length:	OH LINE=38.713 KM , UG CABLE = 3.048 KM , TOTAL = 41.761 KM(42 KM Approx)				
Average SR value: 149.69 ohm-ms		Type of BSNL cable: PIJF			
Sl.No.	Name of Telecom line	LOP in KMs	MC in Ohms	FC in Amps	IV in Volts
I (A) HYDGCB Exchange (Gachibowli)					
1	Exchange to Pillar 22 at Telecom Nagar (A-A1)				
2	Exchange to Pillar 37 at Police Comm Office (A-A2)				
3	Exchange to Pillar 38 at Jannardhan Hills (A-A3)				
4	Exchange to Pillar 23 at Gachibowli X Road (A-A4)				
5	Exchange to Pillar 25 at GPRA Campus (A-A5)				
6	Exchange to Pillar 29 at Opp IIT NR TCS Gate (A-A6)				
II (B) HYDISB Exchange (INDIAN SCHOOL OF BUSINESS)					
1	Exchange to Pillar 00 inner Zone (B-B1)				
III (C) HYDINT Exchange (INFOTEC)					
1	Exchange to Pillar 00 Inner Zone (C-C1)				
2	Exchange to Pillar 21 at Infotec x road (C-C2)				
IV (D) HYDNRG Exchange (Nanak ram guda)					
1	Exchange to Pillar 00 Inner Zone (D-D1)				
V (E) HYDHRS Exchange (HILL RIDGE SPRINGS)					
1	Exchange to Pillar 21 at Hill Ridge Springs (E-E1)				
1	Exchange to Pillar 21 at Hill Ridge Villa (E-E2)				
VI (F) HCU EXCHANGE (HYD CENTRAL UNIVERSITY)					
1	Exchange to Pillar No 23,23A,&29 at Gulmohar park (F-F1)				
2	Exchange to Pillar No 22 at Doyans Colony (F-F2)				
3	Exchange to Pillar No 28 at SBI R&D (F-F3)				
4	Exchange to Pillar No 21 & 24 at HCU MAIN GATE (F-F4)				
5	Exchange to Pillar No 25 Near HCU Second gate (F-F5)				
VII (G) MJB EXCHANGE (MASIID BANDA)					
1	Exchange to Pillar No 00 INNER ZONE (G-G1)				
2	Exchange to Pillar No 34 at MLA HOUSE (G-G2)				
3	Exchange to Pillar No 35 at GRAVE YARD (G-G3)				
VIII (H) HYDSRT EXCHANGE (I & T INFOCITY)					
1	Exchange to Pillar No 00 INNER ZONE (H-H1)				
2	Exchange to Pillar No 21 at URDU UNIVERSITY (H-H2)				
3	Exchange to Pillar No 22 OPPOSITE TO SRT GATE (H-H3)				
IX (I) HYDMIC Exchange					
1	Exchange to Pillar 00 Inner Zone (I-I1)				
X (J) HYDDRV Exchange (Dream Valley)					
1	Exchange to Pillar No 49 at Friends colony (J-J1)				
2	Exchange to Pillar No 51 BHEEMAS HOTEL (J-J2)				
3	Exchange to Pillar No 0 at DREAM VALLY (J-J3)				
XI (K) HYD SHM Exchange (SHAMSHABAD)					
1	Exchange to Pillar 21 at SAVERA HOTEL (K-K1)				
2	Exchange to Pillar 22 at POLICE STATION (K-K2)				
3	Exchange to Pillar 31 at RB NAGAR (K-K3)				

IV less than 430V

सहायक निरीक्षक-II / Asst. Director-II
केन्द्रीय विद्युत प्राधिकरण / C.E.A.

4	Exchange to Pillar 24 at GANESH TLKIES(K-K4)				
5	Exchange to Pillar 39 at SIDDHANTHI (K-K5)				
6	Exchange to Pillar 32 at MISSION COMPOUND(K-K6)				
XII (L)	HYD AZN EXCHANGE (AZIZ NAGAR)				
1	Exchange to Pillar 00 INNER ZONE(L-L1)				
2	Exchange to Pillar 21 BUS STAND(L-L2)				
3	Exchange to Pillar 22 GANDHIPET X ROAD (L-L3)				
4	Exchange to Pillar 23 YENKEPALLY X ROAD(L-L4)				
5	Exchange to Pillar 24 GRAM PANCHAYAT(L-L5)				
6	Exchange to Pillar NAGI REDDY GUDA(L-L6)				
XIII (M)	HYDNRS EXCHANGE (NARSINGI)				
1	Exchange to Pillar 00 INNER ZONE (M-M1)				
2	Exchange to Pillar 21 MANCHRIVULA X ROAD(M-M2)				
3	Exchange to Pillar 22 PAPPALAGUDA (M-M3)				
4	Exchange to Pillar 23 MANIKONDA BUS STOP (M-M4)				
5	Exchange to Pillar 24 SECRATORY COLONY (M-M5)				
6	Exchange to Pillar 25 LALAMMA GARDEN(M-M6)				
7	Exchange to Pillar 30 MANCHERIVULLA VILLAGE (M-M6)				
XIV (N)	HYDKNP EXCHANGE (KHANAPUR)				
1	Exchange to Pillar 00 INNER ZONE (N-N1)				
2	Exchange to Pillar 21 at GRAM PANCHAYAT(N-N2)				
3	Exchange to Pillar 23 KHANAPUR BUS STAND(N-N3)				
4	Exchange to Pillar 24 VATTI NAUGALAPALLI (N-N4)				
XV (O)	HYDVGR EXCHANGE (VILLA GREEN)				
1	Exchange to Pillar 00 INNER ZONE (O-O1)				
2	Exchange to Pillar 21 at MAGADHA(O-O2)				
3	Exchange to Pillar 22 GANDHIPET VILLAGE(O-O3)				
4	Exchange to Pillar 23 CBIT (O-O4)				
XVI (P)	HYDMNDEXCHANGE (MOINABAD)				
1	Exchange to Pillar 22 NEAR CHOWRASTRA (P-P1)				
2	Exchange to Pillar 23 NEAR POST OFFICE(P-P2)				
3	Exchange to Pillar 24 NEAR INDIAN OIL PETROL PUMP(P-P3)				
XVII (Q)	HYDRNR EXCHANGE (Rajendra nagar)				
1	Exchange to Pillar 27 near NPA GATE(Q-Q1)				
2	Exchange to Pillar 00 INNER ZONE(Q-Q2)				
XVIII(R)	HYDAT EXCHANGE (ATTAPUR)				
1	Exchange to Pillar 92A at CHINTALMET ROAD(R-R1)				
2	Exchange to Pillar 86 at VASUDEVA REDDY NGR(R-R2)				
3	Exchange to Pillar 82 at CENTRAL BANK OF INDIA (R-R3)				
4	Exchange to Pillar 81 near ESHVAR THEATRE(R-R4)				
5	Exchange to Pillar no 95 at METRO PILLAR NO 143, MEPHIL HOTEL(R-R5)				
6	Exchange to Pillar no 95A at BANK OF INDIA(R-R6)				

IV less than 430V

(2/2)

तनुज/TANUJ
सहायक निदेशक-II/Asstt. Director-II
केन्द्रीय विद्युत प्राधिकरण/C.E.A.
विद्युत मंत्रालय/Ministry of Power

ANNEXURE -II

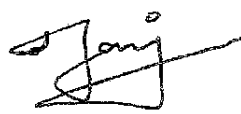
CEA Case No.: TNG-106
Name of the Power line: 400 kV D/C transmission line from
 400 kV Kethireddypally S/S to proposed 400/220/132 kV
 Rayadurg GIS partly through UG cable.

Map Scale : 1 cm=500 m
Total Length : 42 km (approx.)
Soil Resistivity : 15,000 ohm-cm

S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms	Effective Fault current in Amps	IV in Volt
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South Central Railway letter no:- SG.85/4/3/PTCC/SCRTS202133 RTD Dated :13.12.2021
Affected Blocks & Telecom Circuits Details

1.	Telapur to Ramachandrapuram TS	Outside IV Consideration Zone			00
2	Telapur to Lingampalli (LPI)	Out of Parallelism			00
3	Lingampalli to Hafizpet (HFZ)	Out of Parallelism			00
4	Hafizpet to Santhnagar (SNF)	Out of Parallelism			00
5`	Santhnagar to Hussain Sagar Jn. (HSJ)	Out of Parallelism			00
6	Santhnagar to Ammuguda	Out of Parallelism			00
7	Hussainsagar Jn. to Hyderabad	Outside IV Consideration Zone			00
8	Hussainsagar Jn. to Secunderabad	Outside IV Consideration Zone			00
9	Secunderabad to Sitaphalmandi	Outside IV Consideration Zone			00
10	Sitaphalmandi to Kacheguda	Outside IV Consideration Zone			00
11	Kacheguda to Faluknuma (FM)	Outside IV Consideration Zone			00
12	Faluknuma to Budvel (BDVL)	Outside IV Consideration Zone			00
13	Budvel to Umdanagar (UR)	0.3	0.0001	8354	01
14	Umdanagar to Timmapur (TMX)	5.7	0.0005	11429	06
15	Timmapur to Shadnagar	Outside IV Consideration Zone			00


 सहायक निदेशक-II/Asstt. Director-II
 केन्द्रीय विद्युत प्राधिकरण/C.E.A.
 विद्युत मंत्रालय/Ministry of Power
 भारत सरकार/Govt. of India
 नई दिल्ली/New Delhi-66

Tele : 23019746

TNG-106
(Annexure-III)

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

10 Feb 2021

B/46937/Sigs 7(b)/2277

Chief Engineer, (400kV)
TSTRANSCO
Transmission Corporation of Telangana Limited
Vidyut Soudha,
Hyderabad - 500 082

**ERECTION OF RAYADURG SYSTEM IMPROVEMENT SCHEME-SUPPLY,
ERECTION, TESTING AND COMMISSIONING OF 400/220/132KV GIS AT
RAYADURG AND CONNECTED NETWORK ON TURNKEY BASIS-400KV
DC LINE FROM 400KV KETHIREDDYPALLY SS TO PROPOSED
400/220/132KV RAYADURG GIS OF LENGTH 41.761KM (42KM APPROX)-
PTCC PROPOSALS-FORWARDED-REG.**

1. Refer your letter No Lr. No. CE/400kV/SE-II/400kV/D1-A4/F.e-EHVT-01/18/D.No. 980/20 dt 09 Dec 2020 (copy att).
2. No Objection Certificate (NOC) is accorded based on inputs provided vide Map sheets received under your above mentioned letter.
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 :-

The Director (PTCC), CEA
Power Communication Development Division
NRPC Complex, 18-A Shaheed Jeet Singh Marg
Katwaria Sarai, New Delhi - 110016

The DET(PTCC), Northern Zone
O/o PGM (North), QA & Inspection Circle,
D-Tax Building, Eastern Court, Janpath
New Delhi-110001

for information