



भारत सरकार  
Government of India  
विद्युत मंत्रालय  
Ministry of Power  
केन्द्रीय विद्युत प्राधिकरण  
Central Electricity Authority  
विद्युत संचार विकास प्रभाग  
Power Communication Development Division  
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CEA Case No.: TNG-104 :  
PTCC proposal for LILO of 220 kV Gachibowli to Erragadda transmission line at proposed 400/220/132 kV Rayadurg GIS with XLPE UG Cable (1000Sqmm): 3.5 km

| Reference: |   |            |
|------------|---|------------|
| S. No.     | Reference No.   | Dated      |
| (i)        | TSTRANSCO: CE/400kV/SE-II/400kV/D1-A4/F.e-<br>EHVT-01/18/D.No. 731/20 | 15.10.2020 |
| (ii)       | BSNL: SR-PTCC/STS-2867/04   | 27.07.2021 |
| (iii)      | South Central Railway: SG.85/4/3/PTCC/SCRSTS202116 RTD                | 31.03.2021 |
| (iv)       | Defense: B/46937/Sigs 7(b)/2278                                       | 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.

Validity unknown

Digitally signed by RAGHUVENDRA PRATAP SINGH  
Date: 2021.11.25 11:26:57 IST

To,

MIC Director

|    |   |   |                           |
|----|---|---|---------------------------|
| 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      |

(Annexure-I)

Case No. STS 2867 SSA: HYDERABAD

Name of the power line: PTCC Proposal for Erection of LILO of 220 KV Gachibowli - Erragadda line to the Proposed 400/220/132 KV Rayadurg GIS for 3.5 Kms with XLPE UG Cable.

Length: 3.5 Kms

Average SR value: 354.619 ohm -ms

Type of BSNL cable: PIJF

| Sl.No.       | Name of Telecom line                            | LOF in KMs | MC in Ohms | FC in Amps | IV in Volts |                   |
|--------------|---|------------|------------|------------|-------------|-------------------|
| I GCB (A)    | GACHIBOWLI EXCHANGE UG CABLES                   | }          |            |            |             |                   |
| 1            | Exge to Pillar.22 at Telecom Nagar (A-A1)       |            |            |            |             |                   |
| 2            | Exge to Pillar.37 at Police Comm.Office (A-A2)  |            |            |            |             |                   |
| 3            | Exge to Pillar.38 at Jannardhan Hills (A-A3)    |            |            |            |             |                   |
| 4            | Exge to Pillar.23 at Gachibowli X Road (A-A4)   |            |            |            |             |                   |
| 5            | Exge to Pillar.25 at GPRA Campus (A-A5)         |            |            |            |             |                   |
| 6            | Exge to Pillar.29 at Opp IIT NR TCS Gate (A-A6) |            |            |            |             |                   |
| II ISB (B)   | INDIAN SCHOOL OF BUSINESS EXCHANGE UG CABLES    |            |            |            |             |                   |
| 1            | Exge to Pillar.00 at Inner Zone (B-B1)          |            |            |            |             |                   |
| III INT (C)  | INFOTECH EXCHANGE UG CABLES                     |            |            |            |             |                   |
| 1            | Exge to Pillar.00 at Inner Zone (C-C1)          |            |            |            |             | IV less than 430V |
| 2            | Exge to Pillar.21 at Infotech X Road (C-C2)     |            |            |            |             |                   |
| IV NRG (D)   | HYDNRG EXCHANGE UG CABLES                       |            |            |            |             |                   |
| 1            | Exge to Pillar.00 at Inner Zone (D-D1)          |            |            |            |             |                   |
| V HRS (E)    | HILL RIDGE SPRINGS EXCHANGE UG CABLES           |            |            |            |             |                   |
| 1            | Exge to Pillar.21 at Hill Ridge Springs (E-E1)  |            |            |            |             |                   |
| 2            | Exge to Pillar.22 at Hill Ridge Villa (E-E2)    |            |            |            |             |                   |
| VI NCC (F)   | NAGARJUNA CONSTRUCTION COMPANY UG CABLES        |            |            |            |             |                   |
| 1            | Exge to Pillar.00 at Inner Zone (F-F1)          |            |            |            |             |                   |
| VII WTD (G)  | WHITE FIELD EXCHANGE UG CABLES                  |            |            |            |             |                   |
| 1            | Exge to Pillar.00 at Inner Zone (G-G1)          |            |            |            |             |                   |
| 2            | Exge to Pillar.37 at Opp Jaya Residency (G-G2)  |            |            |            |             |                   |
| 3            | Exge to Pillar.37A at Opp Venkat Enclave (G-G3) |            |            |            |             |                   |
| VIII BLJ (H) | BALAJI NAGAR EXCHANGE UG CABLES                 |            |            |            |             |                   |
| 1            | Exge to Pillar.76 (H-H1)                        |            |            |            |             |                   |
| 2            | Exge to Pillar.76A (H-H2)                       |            |            |            |             |                   |
| 3            | Exge to Pillar.32 (H-H3)                        |            |            |            |             |                   |

*Jai*

सहायक निदेशक-II/असत

|               |   |  |  |  |  |
|---------------|---|--|--|--|--|
| 4             | Exge to Pillar.77 (H-H4)                                |  |  |  |  |
| IX VVK<br>(I) | VIVEKANANDHAR NAGAR EXCHANGE UG<br>CABLES               |  |  |  |  |
| 1             | Exge to Pillar.51 (I-I1)                                |  |  |  |  |
| 2             | Exge to Pillar.52 (I-I2)                                |  |  |  |  |
| 3             | Exge to Pillar.53 (I-I3)                                |  |  |  |  |
| 4             | Exge to Pillar.27 (I-I4)                                |  |  |  |  |
| 5             | Exge to Pillar.28 (I-I5)                                |  |  |  |  |
| 6             | Exge to Pillar.21 (I-I6)                                |  |  |  |  |
| 7             | Exge to Pillar.22 (I-I7)                                |  |  |  |  |
| 8             | Exge to Pillar.38 (I-I8)                                |  |  |  |  |
| 9             | Exge to Pillar.25 (I-I9)                                |  |  |  |  |
| 10            | Exge to Pillar.23 (I-I10)                               |  |  |  |  |
| 11            | Exge to Pillar.23A (I-I11)                              |  |  |  |  |
| 12            | Exge to Pillar.97 (I-I12)                               |  |  |  |  |
| 13            | Exge to Pillar.97A (I-I13)                              |  |  |  |  |
| 14            | Exge to Pillar.59 (I-I14)                               |  |  |  |  |
| 15            | Exge to Pillar.59A (I-I15)                              |  |  |  |  |
| X MDI (J)     | STATE ART GALLERY EXCHANGE UG<br>CABLES                 |  |  |  |  |
| 1             | Exge to Pillar.93 at State Art Gallery (J-J1)           |  |  |  |  |
| 2             | Exgeto Pillar.93A at near Kavuri<br>Sambasivarao (J-J2) |  |  |  |  |
| XI MDP<br>(K) | MADHAPUR EXCHANGE UG CABLES                             |  |  |  |  |
| 1             | Exge to Pillar.44 at Opp.Cyber Gateway (K-<br>K1)       |  |  |  |  |
| 2             | Exge to Pillar.43 near Mind Space-TCL bldg<br>(K-K2)    |  |  |  |  |

IV less than 430V

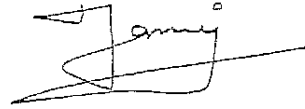
*Jani*

तनुज / TANUJ  
 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-65

## ANNEXURE -II

| CEA Case No.: TNG-104  |                  |   |                         |                                 |             |
|--|------------------|---|-------------------------|---------------------------------|-------------|
| Name of the Power line: LLO of 220 kV Gachibowli to Erragadda transmission line at proposed 400/220/132 kV Rayadurg GIS with XLPE UG Cable (1000Sqmm). |                  | Map Scale : 1 cm=500 mts<br>Total Length : 3.5 km<br>Soil Resistivity : 30,000 ohm-cm |                         |                                 |             |
| S.No.  | Telecom. Details | Length of Parallelism in Km.  | Mutual Coupling in Ohms | Effective Fault current in Amps | I.V in Volt |

| South Central Railway letter no:- SG.85/4/3/PTCC/SCRTS202116 RTD Dated :31.03.2021 |  |                    |        |      |    |
|--|--|--------------------|--------|------|----|
| S.No.  | Affected Blocks & Telecom Circuits Details |                    |        |      |    |
| 1.   | Telapur to Ramachandrapuram TS             | Out of Parallelism |        |      | 00 |
| 2  | Telapur to Lingampalli                     | Out of Parallelism |        |      | 00 |
| 3  | Lingampalli to Hafizpet                    | Out of Parallelism |        |      | 00 |
| 4  | Hafizpet to Santhnagar                     | 3.2                | 0.0003 | 9899 | 03 |
| 5  | Santhnagar to Hussain Sagar Jn.            | Out of Parallelism |        |      | 00 |
| 6  | Santhnagar to Ammuguda                     | Out of Parallelism |        |      | 00 |



तनुज/TANUJ  
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-104 (Annexure - III)

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

B/46937/Sigs 7(b)/2278

10 Feb 2021

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-LILO OF  
220KV GACHIBOWLI-ERRAGADDA LINE TO PROPOSED 400/220/132KV  
RAYADURG GIS WITH 220KV 1000SQMM XLPE UG CABLE FOR A LENGTH OF  
3.50KMS-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. 731/20 dt 15 Oct 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