

I/28303/2023



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-133 | | |
|--|---|------------|
| Induced Voltage (IV) calculation for PTCC proposal of 2 400 kV D/C line from proposed 400/11 kV Yedula S/S to proposed 400/11 kV Narlapur S/S (27.651 km) - regd. | | |
| S. No | Reference No. | Dated |
| (i) | TSTRANSCO: CE/PRLIS/D1-A1/F.Yedula-Narlapur Line/D. no.986/2021 | 22.03.2022 |
| (ii) | TSTRANSCO: Email | 09.06.2023 |
| (iii) | BSNL: SR-PTCC/STS 4034/06 | 31.05.2023 |
| (iv) | South Central Railway: SG.85/4/3/PTCC/SCR/2022-23/TS-21 RC | 24.08.2022 |
| (v) | Defense: B/46937/Sigs 7(b)/2910 | 22.08.2022 |

The PTCC proposal submitted vide reference (i) & (ii) has been examined. The LF induction on communication circuits of BSNL with respect to details furnished vide above reference (iii) have been computed. The voltage likely to be induced on paralleling communication cables of BSNL under Single Line to Ground fault condition are enclosed at Annexure-I. The screening factors as applicable have been considered. Vide reference (iv) above, South Central Railway has issued No Objection Certificate (NOC). Vide reference (v) above, DG Signals, MoD has issued No Objection Certificate (NOC) (enclosed as Annexure-II).


EPR Zones for proposed substations are mentioned below:

| Name of the proposed SS | Half Diagonal Distance, D/2 (mts) | Fault Current, I (kA) | Resistance of earthmat, R (Ohms) | d (mts) at 430 V | d (mts) at 650 V | d (mts) at 7 kV | d (mts) at 10 kV |
|-------------------------|-----------------------------------|-----------------------|----------------------------------|------------------|------------------|-----------------|------------------|
| 400/11 kV Yedula SS | 285 | 50 | 0.0347 | 864.94 | 475.73 | NIL | NIL |
| 400/11 kV Narlapur SS | 220 | 30 | 0.2377 | 3428.4 | 2193.6 | 4.1 | NIL |

As per the details submitted by BSNL vide reference (iii) above, no telecom exchanges are lying within the EPR zone of proposed substations.

Taking above into consideration, necessary action for issuance of PTCC route approval may be taken under intimation to this office.

Encl.: As above


 Director 13.6.2023

I/28303/2023
To,

| | | | |
|----|---|---|----------------------|
| 1. | Divisional Engineer (PTCC), Southern Zone | BSNL, Inspection Circle, 1st Floor, Raj Bhavan Exchange No. 26, Sardar Patel Road, Guindy, Chennai-600032 | |
| 2. | Chief Engineer, PRLIS | TSTRANSCO, Vidyut Soudha, Hyderabad – 500082 | Copy for information |

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ANNEXURE-I

| CEA Case No.: TNG-133 | | Map Scale : 1 cm= 500 m | | | |
|---|--|------------------------------|--------------------------|----------------------------------|---------------|
| Name of the Power line: 400 kV D/C line from proposed 400/11 kV Yedula S/S to proposed 400/11 kV Narlapur S/S | | Total Length : 27.651 km | | | |
| | | S.R. Value : 20000 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 4034/06 Date: 31.05.2023 | | | | | |
| I A | KOLLAPUR TELEPHONE EXCHANGE | | | | |
| 1 | Exge to Bus Stand (A-A1) | Out of parallelism | | | |
| 2 | Exge to Wanaparthi Road (A-A2) | | | | |
| 3 | Exge to Hanuman Temple Veedhi (A-A3) | | | | |
| 4 | Exge to Yellur Road (A-A4) | | | | |
| 5 | Exge to Kollapur Palace Road (A-A5) | | | | |
| II B | KALVAKOLE TELEPHONE EXCHANGE | | | | |
| 1 | Exge to Kollapur Road (B-B1) | 0.3 | 0.0091 | 18890 | 172 |
| 2 | Exge to Gram Panchayat (B-B2) | IV less than 430 V | | | |
| III N | NAGARKURNOOL TELEPHONE EXCHANGE | | | | |
| 1 | Nagapur BTS | IV calculation not required | | | |
| 2 | Vennicherla BTS | | | | |

I/28303/2023

Tele : 23019746

TNG-133

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

B/46937/Sigs 7(b)/2910/

22 Aug 2022

Chief Engineer,
PRLIS, TSTRANSCO
Transmission Corporation of Telangana State Limited
Vidyut Soudha,
Hyderabad - 500 082

**ERECTION OF 400KV QUAD MOOSE DC LINE FROM PROPOSED 400/11KV
YEDULA SS TO PROPOSED 400/11KV NARLAPUR SS-27.651 KM-PTCC
PROPOSAL-REG**

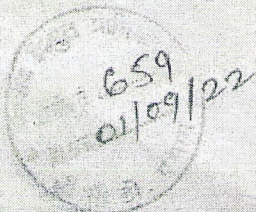
1. Refer your letter No Lr. No. CE/PRLIS/D1-A1/F.Yedula-Narlapur Line/D.No. 986/2021 dt 22 Mar 2022 (copy att).
2. No Objection Certificate (NOC) is accorded based on inputs provided as per Map sheets received vide your letter mentioned above.
3. Documents alongwith map sheets (in original) are returned herewith for your further necessary action.

Samyal
(PS Samyal)
Col
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



Dr. Prateek
pls examine
9/9/22