



सत्यमेव जयते

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

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|---|--|--------------|
| CEA Case No. : AND-730 | | |
| Induced Voltage (IV) calculation for PTCC proposal of balance work of 220 kV D/C Line on Monopoles and M/C towers from 220 kV Gundala S/s to 220 kV Nunna S/s in Krishna District by dismantling existing S/C towers from Loc No: AP-12 to AP-23 [Length – 1.613 km]-Regd. | | |
| S. No | Reference No. | Dated |
| (i) | APTRANSCO: CE/Projects/SE(220 kV & 132 kV) F. No. Monopole/ D.No120/23 | 25.05.2023 |
| (ii) | APTRANSCO: e-Mail | 07.05.2025 |
| (iii) | BSNL: SR-PTCC/SAP5314/5 | 25.10.2023 |
| (iv) | South Central Railways: SG.85/4/3/PTCC/2025-26/SCRAP02RTD | 08.04.2025 |
| (v) | Defense: B/46937/Sigs7(b)/3393 | 06.09.2023 |

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

Taking above into consideration, necessary action for issuance of PTCC route approval (RAC) shall be taken under intimation to this office in the stipulated period as specified in PTCC Manual and subsequent CLPTCC meetings.

As per the decision taken in 111th and 112th CLPTCC meeting, necessary instructions for “Deemed Energization approval” shall be specified while issuing RAC.

Chief Engineer

To,

| | | | |
|----|---|---|----------------------|
| 1. | Divisional Engineer (PTCC), Southern Zone | QA & Insp Circle, BSNL Office Jayanagar, Bangalore | |
| 2. | GM (S&T) | O/o PCSTE, 7 th Floor Rail Nilayam, Secunderabad | |
| 3. | Chief Engineer APTRANSCO | CE Projects Vidyut Sabha, Vijaywada | Copy for information |

ANNEXURE-I

| CEA Case No.: AND-730 | | | Map Scale : 1 cm= 500 m | | |
|---|-------------------------|-------------------------------------|----------------------------------|---|----------------------|
| Name of the Power line: Balance work of 220 kV D/C Line on Monopoles and M/C towers from 220 kV Gundala S/s to 220 kV Nunna S/s in Krishna District by dismantling existing S/C towers from Loc No: AP-12 to AP-23 | | | Total Length : 1.613 km | | |
| | | | S.R. Value : 25000 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: SR-PTCC/SAP5314/5

Dated 25.10.2023

Affected Blocks & Telecom Circuits Details

| | | |
|----|-----------------------------|--------------------|
| 1. | Nunna Exchange to Pillar 21 | Out of Parallelism |
| 2. | Nunna Exchange to Pillar 31 | Out of Parallelism |
| 3. | Nunna Exchange to Pillar 22 | Out of Parallelism |
| 4. | Nunna Exchange to Pillar 41 | Out of Parallelism |
| 5. | Nunna Exchange to Pillar 23 | Out of Parallelism |
| 6. | Nunna Exchange to Pillar 24 | Out of Parallelism |

ANNEXURE-II

| CEA Case No.: AND-730 | | | Map Scale : 1 cm= 500 m | | |
|--|--------------------------------------|------------------------------|---------------------------|----------------------------------|---------------|
| Name of the Power line: Balance work of 220 kV D/C Line on Monopoles and M/C towers from 220 kV Gundala S/s to 220 kV Nunna S/s in Krishna District by dismantling existing S/C towers from Loc No: AP-12 to AP-23 | | | Total Length : 1.613 km | | |
| | | | S.R. Value : 25000 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 Railways: SG.85/4/3/PTCC/2025-26/SCRAP02RTD | | | | | |
| Dated 08.04.2025 | | | | | |
| <u>Affected Blocks & Telecom Circuits Details</u> | | | | | |
| 1. | Peddavadlapudi to Krishna Canal Jn | | Out of Parallelism | | |
| 2. | Krishna Canal Jn to Vijaywada Jn | | Out of Parallelism | | |
| 3. | Vijaywada Jn to Gunadala Jn | | Out of Parallelism | | |
| 4. | Gunadala Jn to Mustabada Jn | 1.0 | 0.0043 | 19500 | 84 |
| 5. | Mustabada Jn to Gannavaram Jn | | Out of Parallelism | | |
| 6. | Vijaywada Jn to Ramavarapaddu Jn | | Out of Parallelism | | |
| 7. | Ramavarapaddu Jn- Nidamanaru | | Out of Parallelism | | |
| 8. | Nidamanaru to Uppalauru | | Out of Parallelism | | |
| 9. | Mangalagiri to Krishna Canal Jn | | Out of Parallelism | | |
| 10. | Rayanapadu to Vijaywada West Cabin | | Out of Parallelism | | |
| 11. | Vijaywada Jn to Vijaywada West Cabin | | Out of Parallelism | | |