

I/34079/2024



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

| CEA Case No. : RAJ-697 | | |
|--|--|------------|
| Induced Voltage calculation for PTCC proposal of 765 kV D/C Fatehgarh-II to Bhadla-II (2 nd) Transmission Line [Length – 202.205 km]-Regd. | | |
| S. No | Reference No. | Dated |
| (i) | POWERGRID: NR-1/JSM/F2-B2/2 nd /PTCC/NOC | 30.06.2023 |
| (ii) | POWERGRID : NR-1/JSM/F2-B2/2 nd /PTCC/NOC/351 | 08.02.2024 |
| (iii) | POWERGRID e-Mail | 22.02.2024 |
| (iv) | BSNL: DET/PTCC/ND/DV-10301/Raj-1448/2023-2024 | 24.01.2024 |
| (v) | North Western Railway: SG/158/NWR/PTCC/923 | 24.07.2023 |
| (vi) | Defense: B/46937/Sigs7(b)/3445/ | 24.01.2024 |

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

As both the substations are existing, EPR zone verification is not required.

Taking above into consideration, necessary action regarding issuance of PTCC approval for the subject cited transmission line might be taken under intimation to this office.

Encl.: As above

Chief Engineer

To,

| | | | |
|----|---|--|-----------------------|
| 1. | Divisional Engineer (PTCC), Northern Zone | BSNL, O/o GM (North), QA & Inspection Circle D-Tax Building, Eastern Court, Janpath New Delhi-110001 | |
| 2. | GM (S&T) | North Western Railway, Headquarter Office, Room No. 136, First Floor, Near Jawahar Circle, Jaipur - 302017 | Annexure-I |
| 3. | Sr.G.M POWERGRID | House No 451, Achalvanshi Colony Jaisalmer, POWERGRID | Copy for information. |

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ANNEXURE-I

| CEA Case No.: RAJ-697 | | | Map Scale : 1 cm= 500 m | | |
|--|---|------------------------------|---------------------------|----------------------------------|---------------|
| Name of the Power line: 765 kV D/C Fatehgarh-II to Bhadla-II (2 nd) Transmission Line. | | | Total Length : 202.205 km | | |
| | | | S.R. Value : 5000 Ohm-cm | | |
| S.No. | Telecom. Details | Length of Parallels in Km. | Mutual Coupling in Ohms. | Effective Fault current in Amps. | I.V in Volts. |
| North Western Railway: SG/158/NWR/PTCC/923 Dated 24.07.2023 | | | | | |
| <u>Affected Blocks & Telecom Circuits Details</u> | | | | | |
| 1. | Nokhra to Sird | Out of IV consideration zone | | | |
| 2. | Sird to Bap | 12.0 | 0.0067 | 32540 | 218 |
| 3. | Bap to Malar | Out of IV consideration zone | | | |
| 4. | Malar to Pahodi Jn Cabin | Out of IV consideration zone | | | |
| 5. | Marwar Bithri to Phalodi Jn | Out of IV consideration zone | | | |
| 6. | Phalodi Jn to Phalodi Jn Cabin | Out of IV consideration zone | | | |
| 7. | Phalodi Jn Cabin to Shaitan Singh Nagar | 2.0 | 0.0008 | 25800 | 21 |
| 8. | Shaitan Singh Nagar to Marawar Lohawat | Out of IV consideration zone | | | |