

I/34076/2024



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.: GUJ-863 | | |
|--|--|--------------|
| Induced Voltage (IV) calculation for PTCC proposal of 220 kV S/C line from 220/33 kV PSS of M/s HR Sabarmati Pvt Ltd to 220/66 kV Agathala SS of GETCO (Length: 5.52 Kms) | | |
| S. No | Reference No. | Dated |
| (i) | HRSPL/2023-24/Solar/220kV line/PTCC/001 | 12.09.2023 |
| (ii) | BSNL: IC/MBI/PTCC/GUJ-WGJ-100120245483/ WGJ-100120245486/ WGJ-100120245487/ WGJ-100120245489/ WGJ-100120245488/ WGJ-160120245514 | 22.01.2024 |
| (iii) | Western Railway: SG.158/28/09/334 | 31.10.2023 |
| (iv) | Defense: B/46937/Sigs 7(b)/3550 | 02.02.2024 |

The PTCC proposal submitted vide reference (i) has been examined. The LF induction on communication circuits of BSNL with respect to details furnished vide above reference (ii) have been computed. The voltage likely to be induced on paralleling communication circuits of BSNL under Single Line to Ground fault condition are enclosed at Annexure-I. The screening factors as applicable have been considered.

GM (S&T), Western Railway vide reference (iii) and DG Signals, MoD, vide reference (iv) have issued their No Objection certificate (NOC) for charging of the line.

EPR zone for the proposed substation is mentioned below:

| Name of the proposed Substation | Half diagonal distance, D/2 (mts) | Fault Current I (KA) | Resistance of Earth Mat, R (ohms) | d (mts) at 430 V | d (mts) at 650 V | d (mts) at 7kV | d (mts) at 10kV |
|--|-----------------------------------|----------------------|-----------------------------------|------------------|------------------|----------------|-----------------|
| 220/33 kV PSS of M/s HR Sabarmati Pvt Ltd. | 72.5 | 28 | 0.4 | 1816 | 1177 | 44 | 9 |

As per the details submitted by BSNL vide reference (ii) above, no telephone exchanges are falling in the EPR zone of the proposed substation.

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

Encl.: As above

Chief Engineer

I/34076/2024 To,

| | | | |
|----|--|---|----------------------|
| 1. | Divisional Engineer (PTCC), Western Zone | QA & Inspection circle, 1 st floor, D- wing, BSNL Admin Bldg., Junu Tara Road, Santacruz (West), Mumbai-400054 | |
| 2. | M/s HR Sabarmati Private Ltd. | Hinduja House, 171, Dr. Annie Besant Road, Worli, Mumbai – 400 018 | Copy for information |

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ANNEXURE-I

| CEA Case No.: GUJ-863 Name of the Power line: 220 kV S/C line from 220/33 kV PSS of M/s HR Sabarmati Pvt Ltd to 220/66 kV Agathala SS of GETCO | | | Map Scale : 1 cm= 500 m Total Length : 5.52 km S.R. Value : 15000 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: IC/MBI/PTCC/GUJ-WGJ-100120245483/ WGJ-100120245486/ WGJ-100120245487/ WGJ-100120245489/ WGJ-100120245488/ WGJ-160120245514 Dated: 22.01.2024 | | | | | |
| I | Lakhani Exchange | | | | |
| 1 | Lakhani Exchange – Local (400*1 P) | | Out of parallelism | | |
| 2 | Lakhani Exchange – Local (200*1 P) | | IV less than 430 V | | |
| 3 | Lakhani Exchange – Local (100*1 P) | | Out of parallelism | | |
| II | Vasna Exchange | | | | |
| 1 | Vasna Exchange – Local (200*1 P) | | Out of parallelism | | |
| 2 | Vasna Exchange – Local (200*1 P) | | | | |