



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-898		
Induced Voltage (IV) Calculation for PTCC proposal of 220 kV S/C line on D/C towers from 400 kV Bhogat S/s of GETCO to 220/33 kV PSS of M/s Juniper Green Beam Private Limited at Village Bhogat, Kalyanpur Taluka, Devbhoomi district (Length: 0.8 km)		
S. No	Reference No.	Dated
(i)	JGBPL/Wind-Projects/PTCC/85	09.08.2024
(ii)	BSNL: IC/MBI/PTCC/GUJ-2981	22.10.2024
(iii)	Western Railway: SG.158/28/12/1411	09.09.2024
(iv)	Defense: B/46937/Sigs7(b)/4097	09.12.2024

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

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
220/33 kV PSS of M/s JGBPL at Village Bhogat, Kalyanpur, Devbhoomi	92.5	30	0.9	5716	3750	264	157

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.

Encl.: As above

Chief Engineer

To,

1.	Divisional Engineer (PTCC), Western Zone	QA & Inspection circle, 1st floor, D- wing, BSNL Admin Bldg., Junu Tara Road, Santacruz (West), Mumbai-400054
2.	GM (S&T), Western Railway	S&T Department, 5th Floor, Station Building, Church Gate, Mumbai – 400 020
3.	M/s Juniper Green Beam Private Limited	F-9, First Floor, Manish Plaza-1, Plot No. 7 MLU, Sector-10, Dwarka, New Delhi – 110 075

ANNEXURE-I

CEA Case No.: GUJ-898 Name of the Power line: 220 kV S/C line on D/C towers from 400 kV Bhogat S/s of GETCO to 220/33 kV PSS of M/s Juniper Green Beam Private Limited at Village Bhogat, Kalyanpur Taluka, Devbhoomi district			Map Scale : 1 cm= 500 m Total Length : 0.8 km S.R. Value : 10000 Ohm-cm		
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.
Western Railway: SG.158/28/12/1411 Date: 09.09.2024					
1	Bhathiya to Okhamadhi	Out of parallelism			