



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-950		
Induced Voltage (IV) calculation for PTCC proposal of LILO of 220 kV Talangpore-Navsari Transmission Line & 220 kV Talangpore-Vav Transmission Line on M/C & D/C Towers at 765 kV Navsari S/s. (Length-14.405 km)- regd.		
S. No	Reference No.	Dated
(i)	GETCO: CE(Project)/EE(TR-II)/T-5/394	14.02.2025
(ii)	GETCO: CE(Project)/EE(TR-II)/PTCC/2263	27.05.2025
(iii)	GETCO: e-mail	29.05.2025
(iv)	BSNL : IC/MBI/PTCC/GUJ/2025-26	07.04.2025
(v)	Western Railway: SG.158/28/12/1468	10.03.2025

The PTCC proposal submitted vide reference (i), (ii) & (iii) has been examined. The LF induction on Block and Telecom circuits of 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 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 has issued NOC vide above reference (iv).

EPR Zones for proposed substation is 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
765/400kV Navsari S/s	268	44.1	0.019	279	94	NA	NA

Telecommunication details from Defense are still pending and vide above reference (ii), transmission utility has shown urgency for charging of line and has requested for provisional PTCC approval. Taking above into consideration, necessary action for issuance of provisional 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), Western Zone	QA & Inspection circle, 1 st floor, D-wing, BSNL Bldg., Santa Cruz (West), Mumbai-400054	
2.	GM (S&T) Western Railway	O/o PCSTE, S&T Dept. Western Railway, Church gate, Mumbai	
3.	Director General of Signals	General Staff Branch, Integrated HQ, MoD (army), Sena Bhawan, DHQ, PO, New Delhi- 110 105	With a request to provide details of Telecom assets/ NOC at the earliest for issuance of final RAC.
4.	Chief Engineer (Projects)- GETCO	Sardar Patel Vidyut Bhawan, Race Course GETCO, Vadodara	Copy for information

ANNEXURE-I

CEA Case No.: GUJ-950 Name of the Power line: LILO of 220 kV Talangpore-Navsari Transmission Line & 220 kV Talangpore-Vav Transmission Line on M/C & D/C Towers at 765 kV Navsari S/s.			Map Scale : 1 cm= 500 m Total Length : 14.405 km S.R. Value : 2000 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.158/28/12/1468		Dated 10.03.2025
1.	Navsari R/s to Maroli R/s	-Out of Parallelism-
2.	Maroli R/s to Sachin R/s	-Out of Parallelism-
3	Sachin R/s to Bhestan R/s	-Out of Parallelism-
4.	Bhestan R/s to Udhina R/s	-Out of Parallelism-