



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

CEA Case No. : TN-741		
Induced Voltage (IV) calculation in respect of PTCC proposal for LILO of Abhishekapatti -Sanganeri 230 kV line at 230/11 kV S/s of M/s TP Solar Ltd, Gangaikondan (2.927 km)-regd.		
S. No	Reference No.	Dated
(i)	TANTRANSCO: SE/TR-I/EE/TSM/AEE/F.PTCC/D.91	16.12.2023
(ii)	TANTRANSCO: CE/TR/SE/TR-I/EE/TSM/AEE1/F.PTCC/D.No. 18	09.02.2024
(iii)	BSNL: SR-PTCC/STN 5434/05	27.01.2024
(iv)	Southern Railway: W.384/3/2/1234	21.12.2023

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

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
230/11 kV TP Solar Ltd, Gangaikondan	91.5	28	0.5	2888	1879	92	37

As per the details submitted by BSNL, no telecom exchanges are lying in the EPR zone of the proposed substation.

Telecommunication details from Defense are pending. Vide reference (ii), TANTRANSCO has shown urgency for charging the line for power evacuation and has submitted the undertaking that in case of any damage to telecom assets or personnel of Defense, TANTRANSCO shall take all remedial action and has requested for provisional PTCC clearance.

Taking the above into consideration, necessary action for issuance of provisional PTCC route approval may be taken under intimation to this office.

Deputy Director

I/33880/2024

To,

1.	Divisional Engineer (PTCC), Southern Zone	BSNL, Inspection Circle, 1st Floor, Raj Bhavan Exchange No. 26, Sardar Patel Road, Guindy, Chennai-600032	
2.	Superintending Engineer/Transmission-I	TANTRANSCO, 5th floor, TANTRANSCO HQ, 144, Anna Salai, Chennai - 600002	
3.	GM, S&T	HQ Office, S&T Branch, Chennai-600003	
4.	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 IV calculation and issuance of final RAC.

I/33880/2024

ANNEXURE-I

CEA Case No.: TN-741 Name of the Power line: LILO of Abhishekapatti -Sanganeri 230KV line at M/s TP Solar Ltd, Gangaikongan		Map Scale : 1 cm= 500 m Total Length : 2.927 km S.R. Value : 30000 Ohm-cm			
Southern Railway Letter No.- W.384/3/2/1234		Date: 21.12.2023			
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.
1	MEJ-NRK	Outside IV consideration zone			
2	NRK-GDN	0.8	0.0002	27275	6
3	GDN-TAY	0.3	0.00014	27698	4
4	TAY-TEN	Outside IV consideration zone			