



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-751		
Induced Voltage (IV) calculation in respect of PTCC proposal for LILO of 400kV D/C Alamathy – Manali line at Thervokandigai (36.59 km)- regd.		
S. No	Reference No.	Dated
(i)	TANTRANSCO:SE/TR-I/EE/TSM/AEE1/F.PTCC/D.No. 25	04.03.2024
(ii)	BSNL: SR-PTCC/STN 5674/05	23.04.2024
(iii)	Southern Railway: W.384/3/2/1235	21.03.2024
(iv)	Defense: B/46937/Sigs 7(b)/3801/	09.05.2024

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 cables of BSNL under Single Line to Ground fault condition are enclosed at Annexure-I. The screening factors as applicable have been considered. Southern Railway has issued NOC vide above reference (iii). Vide reference (iv) above, DG Signals, MoD has issued No Objection Certificate (NOC) (enclosed as Annexure-II).

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
400/230 kV Thervokandigai SS	109.5	36	0.12	990	618	NA	NA

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 for issuance of PTCC route approval may be taken under intimation to this office.

Encl.: As above

Chief Engineer

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

ANNEXURE-I

CEA Case No.: TN-751		Map Scale : 1 cm= 500 m			
Name of the Power line: : LILO of 400kV D/C Alamathy – Manali line at Thervokandigai		Total Length : 36.59 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 Letter No.- SR-PTCC/STN 5674/05		Date: 23.04.2024			
I	UTHUKOTTAI TELEPHONE EXCHANGE				
1	Exge to Nagalapuram Rd	2.03	0.0142	6558	93
2	Exge to Bazar Rd	5.265	0.1488	6247	930
II	GUNIPALAYAM TELPHONE EXCHANGE				
1	Exge to T B Puram	IV less than 430V			
2	Exge to Rajapalayam				
3	Exge to Pennalurpet				
4	Exge to Vellathukottai				
III	VELLILYUR TELEPHONE EXCHANGE				
1	Exge to Vengal	Out of Parallelism			
IV	THAMARAIPAKKAM TELEPHONE EXCHANGE				
1	Exge to Avadi	IV less than 430V			

E-mail: webstar@nic.in

Directorate General of Signals
 Signals 7
 General Staff Branch
 Integrated HQ of MoD, (Army)
 DHQ PO, New Delhi - 110011

B/46937/Sigs 7(b)/3801/


09 May 2024

TN-751

Superintending Engineer/Transmission-I &
 Secretary/Power, SLPTCC
 TamilNadu Transmission Corporation
 5th Floor, TANTRANSCO HQ,
 144, Anna Salai, Chennai-600 002

PTCC ROUTE APPROVAL FOR THE ERECTION OF 400 KV DC LINE ON DC TOWERS WITH TWIN MOOSE ACSR CONDUCTOR BY MAKING LILO OF EXISTING ALAMATHY 400/230-110KV SS TO MANALI 400/230-110 KV SS AT COMMON POINT (LOCATION NO 105) OF 400 KV DC ALMATHY-MANALI LINE FOR PROPOSED THERVAIKANDIGAI 400/230/110 KVSS

1. Refer your letter No SE/TR-I/EE/TSM/AEE/F.PTCC/D.25 dt 04 Mar 2024 (copy att).
2. **No Objection Certificate (NOC) is accorded** based on inputs provided as per Map sheets received vide your letter mentioned above.
3. Documents alongwith map sheets (in original) are returned herewith for your further necessary action.



(Puneet Lakhanpal)
 Lieutenant Colonel
 General Staff Officer Grade 1 (Communication)
 for Additional Director General (Telecommunication)

Enclosures : As above

Copy to :-

Chief Engineer, PSCD Division
 Central Electricity Authority
 Room No 702 (North Wing)
 Sewa Bhawan, R.K. Puram, Sector-1
 New Delhi-110066

The DET(PTCC), Northern Zone
 O/o PGM (North), QA & Inspection Circle,
 Bharat Sanchar Nigam Limited
 D-Tax Building, Eastern Court, Janpath
 New Delhi-110001

- for information

Central Electricity Authority
 PCD Division

Diary No. 576
 Date 24/5/24

Sh. Anil (DD)
 24/5

Pb. examine & pu. 31/5/24
 29/05

Sh. Parveen