



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. : AND-773		
Induced Voltage (IV) calculation in respect of PTCC proposal for 400 kV D/C line from 400/220 kV Ananthpuram PS to 765/400/220 kV Cuddapah PS (185.37 km)- regd.		
S. No	Reference No.	Dated
(i)	PGCIL: PAKTL/GOOTY CAO/TL-02/PTCC	06.02.2025
(ii)	PGCIL : Email	12.08.2025
(iii)	BSNL: SR-PTCC/ANP-773/2025-26/7	04.08.2025
(iv)	South Central Railway:SG.85/4/3/PTCC/2025-26/SCRAP 15 RTD	20.06.2025
(v)	Defense: B/46937/Sigs 7(b)/4517	10.07.2025

The PTCC proposal submitted vide above reference (i) & (ii) has been examined. The LF induction on Block and Telecom circuits of South Central 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 South Central Railway under Single Line to Ground fault condition are enclosed at Annexure-I. The screening factors as applicable have been considered. DET (PTCC), SZ, BSNL has issued NOC vide reference (iii) above.

ADG (Telecommunications) has issued No Objection Certificate (NOC) vide reference (v) above (attached as Annexure –II).

EPR Zones for proposed substation 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
400/220 kV Ananthpuram	265	33.39	0.14	2616	1641	NA	NA

As per the details submitted by BSNL vide reference (iii) 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 (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), Southern Zone	BSNL, Inspection Circle, 2 nd Floor, Sanchar Complex, WMS Compound, Jayanagar 5 th Block, 9 th Main, 47 th Cross, Bangalore-560041	
2.	PCSTE/SCR	O/o Principal Chief Signal & Telecom Engineer 7th Floor, Rail Nilayam, Secunderabad-500025	
3.	General Manager (Gooty CAO – PGCIL)	Construction Area Office, 400 kV Gooty SS, Kurnool Road, Gooty, Anantapur, Andhra Pradesh - 515402	Copy for information

ANNEXURE-I

CEA Case No.: AND-773			Map Scale : 1 cm= 500 m		
Name of the Power line: 400 kV D/C line from 400/220 kV Ananthpuram PS to 765/400/220 kV Cuddapah PS			Total Length : 185.37 km		
			S.R. Value : 30000 Ohm-cm		
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.

SCR Letter No: SG.85/4/3/PTCC/2025-26/SCRAP 15 RTD						Dated 20.06.2025					
1.	Kanamalopalle (KNLP) – Kadapa (HX)	0.475	0.0001	596	0.01						
2.	Kadapa (HX) – Krishnapuram (KPU)	4.643	0.002	12131	24						
3.	Krishnapuram (KPU) – Gangayapalle (GPY)	1	0.00015	1499	0.22						
4.	Gangayapalle (GPY) – Kamalapuram (KKM)	Outside IV consideration zone									
5.	Kamalapuram (KKM) – Yerragudipadu (YGD)										
6.	Yerragudipadu (YGD) – Yerraguntla (YA)										
7.	Yerraguntla (YA) – Kalamalla (KMH)										
8.	Kalamalla (KMH) – Muddanur (MOO)										
9.	Muddanur (MOO) – Mangapatnam (MUM)										
10.	Mangapatnam (MUM) – Kondapuram (KDP)										
11.	Kondapuram (KDP) – Regadipalli (RLL)	1.022	0.00024	14224	3						
12.	Regadipalli (RLL) – Vanganur (VRN)	8.06	0.0015	14378	22						
13.	Vanganur (VRN) – Challavaripalli (CLPE)	6.2	0.001	15598	16						
14.	Challavaripalli (CLPE) – Tadipatri (TU)	10.09	0.0016	16535	26						
15.	Tadipatri (TU) – Komali (KMQA)	1.8	0.0004	17825	7						
16.	Komali (KMQA) – Jutur (JUR)	8.84	0.0016	18484	30						
17.	Gooty Jn (GY) – Patakotha cheruvu (PLU)	0.7	0.0001	25738	3						
18.	Patakotha cheruvu (PLU) – Nakkanadoddi (NKDO)	4.58	0.00084	25844	22						
19.	Nakkanadoddi (NKDO) – Timmancheruvu (TIM)	6.4	0.0075	26315	197						
20.	Timmancheruvu (TIM) – Guntakal Jn (GTL)	2.77	0.003	27582	83						
21.	Guntakal Jn (GTL) – Gulapalayam (GPU)	Out of Parallelism									
22.	Gulapalayam (GPU) – Venkatampalle (VPL)	Outside IV consideration zone									

23.	Venkatampalle (VPL) – Khaderpet (KDT)	Outside IV consideration zone			
24.	Khaderpet (KDT) – Kallur Jn (KLU)				
25.	Kallur Jn (KLU) – Pamidi (PMD)				
26.	Pamidi (PMD) – Turkapalli (TKPY)	3.1	0.009	23960	216
27.	Turkapalli (TKPY) – Gooty Jn (GY)	2	0.0006	24511	15

Directorate General of Signals (Signals-7)

Annexure II

General Staff Branch

Integrated HQ of MoD (Army)


DHQ PO, New Delhi -11

B/46937/Sigs-7(b)/4517 dt 10 Jul 2025

Dy General Manager/Gooty CAO
Powergrid Ananthpuram Kurnool Transmission Ltd
Construction Area Office, 400kv Gooty Substation
Kurnool Road, Gooty
Anantapur Dist. State - A.P., PIN: 515 402

**CONSTRUCTION OF TRANSMISSION LINE PACKAGE-TL-02 FOR 400
KV D/C (QUAD MOOSE) ANANTHPURAM PS-CUDDAPAH PS
TRANSMISSION LINE-PROPOSAL FOR PTCC APPROVAL**

1. Ref your letter No PAKTL/GOOTY CAO/TL-02/PTCC dt 06 Feb 2025
2. No Objection Certificate (NOC) is **accorded** based on inputs provided as per Map sheet 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)

Encls: As above

Copy to:-

HQ Southern Comd (Sigs)

Chief Engineer, PSCD Division
Central Electricity Authority
Room No 702 (North Wing)
Sewa Bhawan, RK Puram, Sector-1
New Delhi-110 066

for info pl.

