

I/33874/2024



सत्यमेव जयते

भारत सरकार
Government of India
विद्युत मंत्रालय
Ministry of Power
केन्द्रीय विद्युत प्राधिकरण
Central Electricity Authority
विद्युत संचार विकास प्रभाग
Power Communication Development Division

CEA Case No. : TNG-147		
Induced Voltage (IV) calculation in respect of PTCC proposal for 220KV DC line from 220KV Shadnagar SS to M/S DC Development Hyderabad Limited at Elikatta (9.6 km) - regd.		
S. No	Reference No.	Dated
(i)	TCTL: CE(Const)/SE-(Const-I)/DE-II/ADE-I/F.DC DEV,Elikatta /D.No.1228/23	02.10.2023
(ii)	BSNL: SR-PTCC/STS 5342/07	05.02.2024
(iii)	South Central Railway : SG.85/4/3/PTCC/SCR/2023-24/TS-20 RTD	21.11.2023
(iv)	Defense: B/46937/Sigs 7(b)/3580	22.12.2023

The PTCC proposal submitted vide reference (i) has been examined. The LF induction on Block and Telecom circuits of South Central Railway with respect to details furnished vide above reference (iii) 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. Screening factors as applicable have been considered.

DET PTCC, Chennai (BSNL) vide reference (ii) and DG Signals, MoD vide reference (iv) (enclosed as Annexure-II) have issued No Objection Certificate (NOC).

EPR details for the proposed substation is given below.

Name of the 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
220KV SS M/s DC Development Hyderabad Limited	46.7	35	0.7	2614	1714	117	190.15

As per the details submitted by BSNL, no telephone exchange is lying 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

I/33874/2024 To,

1.	Divisional Engineer (PTCC), Southern Zone	BSNL, Inspection Circle, 1st Floor, Raj Bhavan Exchange No. 26, Sardar Patel Road, Guindy, Chennai-600032
2.	Chief Engineer Construction	TSTRANSCO, Vidyut Soudha, Hyderabad-500082

I/33874/2024

ANNEXURE-I

CEA Case No.: TNG-147 Name of the Power line: 220KV DC line from 220/132/33KV Shadnagar SS to proposed 220KV SS M/s DC Development Hyderabad Limited		Map Scale : 1 cm= 500 m Total Length : 9.6 km S.R. Value : 15000 Ohm-cm			
South Central Railway Letter No.- SG.85/4/3/PTCC/SCR/2023-24/TS-20 RTD			Date: 21.11.2023		
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.
1	UR-TMX	Outside IV consideration zone			
2	TMX-SHNR	2.3	0.00074	23324	18
3	SHNR-BABR	1.25	0.0002	19810	4

Signals 7

General Staff Branch

Integrated HQ of MoD, (Army)

DHQ PO, New Delhi – 110011

TNG-147

B/46937/Sigs 7(b)/3580/

22 Dec 2023

Chief Engineer, Construction
Transmission Corporation of Telangana Limited
Vidyut Soudha,
Hyderabad – 500 082

ERECTION OF 220KV DC LINE FROM 220KV SS SHADNAGAR TO M/S DC DEVELOPMENT HYDERABAD LIMITED AT ELIKATTA FOR A LENGTH OF 9.6KM (8.4KM OF OH LINE AND 1.2KM OF UNDERGROUND CABLE) IN RANGAREDDY DISTRICT-PTCC PROPOSAL

1. Refer your letter No CE(Const)/SE(Const-1)/DE-II/ADE-I/F.DC DEV Elikatta/D.No. 1228/23 dt 21 Oct 2023 (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.



(SP Choyal)

Lieutenant Colonel

General Staff Officer Grade 1 (Communication)

for Additional Director General (Telecommunication)

Enclosures : As above**Copy to :-**

The Director (PTCC), CEA
Power Communication Development Division
NRPC Complex, 18-A Shaheed Jeet Singh Marg
Katwaria Sarai, New Delhi – 110016

- for information

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

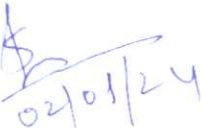
Central Electricity Authority

PCD Division

Diary No...../1/

Date.....11/12/23

DIV(PCD)


02/01/24