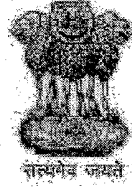


I/28863/2023



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-127		
Induced Voltage (IV) calculation for PTCC proposal of 400 kV D/C line from proposed Yadadri TPP switchyard to existing 400/220 kV Jangaon SS (138.342 km) - regd.		
S. No	Reference No.	Dated
(i)	TSTRANSCO: CE/400kV/SE-II/400kV/D3-A/F.YTPP/19/D.No. 598/21	01.11.2021
(ii)	BSNL: SR-PTCC/STS 3722/08	27.03.2023
(iii)	South Central Railway: SG.85/4/3/PTCC/SCRTS202147 RTD	24.01.2022
(iv)	Defense: B/46937/Sigs 7(b)/2676	10.01.2022

The PTCC proposal submitted vide reference (i) has been examined. The LF induction on communication cables of BSNL and South Central Railway with respect to details furnished vide above reference (ii) & (iii) respectively have been computed. The voltage likely to be induced on paralleling communication cables of BSNL and South Central Railway under Single Line to Ground fault condition are enclosed at Annexure-I & II respectively. The screening factors as applicable have been considered. Vide reference (iv) above, DG Signals, MoD has issued No Objection Certificate (NOC) (enclosed as Annexure-III).

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 kV Yadadri Thermal Power Plant Switchyard	604.4	36600	0.166	7935	5045	NA	NA

As per the details submitted by BSNL vide reference (ii) above, no telecom assets exist within EPR zone of 400 kV Yadadri Thermal Power Plant Switchyard.

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

Encl.: As above

11.7.2023  
 Director

I/28863/2023  
To,

1.	Divisional Engineer (PTCC), Southern Zone	BSNL, Inspection Circle, 1st Floor, Raj Bhavan Exchange No. 26, Sardar Patel Road, Guindy, Chennai-600032	
2.	General Manager (S&T)	South Central Railway, O/o PCSTE, 7 <sup>th</sup> Floor, Rail Nilayam, Secunderabad – 500025	
3.	Chief Engineer, 400kV	TSTRANSCO, Vidyut Soudha, Hyderabad – 500082	Copy for information

I/28863/2023

ANNEXURE-I

CEA Case No.: TNG-127		Map Scale : 1 cm= 500 m			
Name of the Power line: 400 kV D/C line from proposed Yadadri TPP switchyard to existing 400/220 kV Jangaon SS		Total Length : 138.342 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.
<b>BSNL Letter No: SR-PTCC/STS 3722/08 Date: 27.03.2023</b>					
<b>I P</b>	<b>PEMBARTHY TELEPHONE EXCHANGE</b>				
1	Exge to P.01	IV less than 430 V			
<b>II</b>	<b>LINGALAGHANPUR TELEPHONE EXCHANGE</b>				
1	Exge to P.01	IV less than 430 V			

I/28863/2023

ANNEXURE-II

CEA Case No.: TNG-127		Map Scale : 1 cm= 500 m			
Name of the Power line: 400 kV D/C line from proposed Yadadri TPP switchyard to existing 400/220 kV Jangaon SS		Total Length : 138.342 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.
<b>SOUTH CENTRAL RAILWAY Letter No: SG.85/4/3/PTCC/SCRTS202147 RTD Date: 24.01.2022</b>					
1	Nalgonda (NLDA) – Rayanagudem (RYGA)	Outside IV consideration zone			
2	Rayanagudem (RYGA) – Thipparthi (TPPI)	4.85	0.0035	23429	82
3	Thipparthi (TPPI) – Kukkadam (KADM)	11.7	0.0423	24586	1040
4	Kukkadam (KADM) – Miryalaguda (MRGA)	6.95	0.0190	27789	528
5	Miryalaguda (MRGA) – Kondrapole (KDGL)	9.25	0.0016	31250	50
6	Kondrapole (KDGL) – Vishnupuram (VNUP)	Out of parallelism			0
7	Vishnupuram (VNUP) – Pondugula (PDGL)	0.2	0.00003	36540	1
8	Aler (ALER) – Pembarti (PBP)	1.5	0.066	27576	182
9	Pembarti (PBP) – Jangaon (ZN)	5.5	0.0059	28261	167
10	Jangaon (ZN) – Raghunathpalli (RGP)	Out of parallelism			0

I/28863/2023

Tele : 23019746

TNG-125  
Directorate General of Signals  
Signals 7  
General Staff Branch  
Integrated HQ of MoD, (Army)  
DHQ PO, New Delhi - 110011


B/46937/Sigs 7(b)/2676/

10 Jan 2022

Chief Engineer,  
400KV, TSTRANSCO  
Transmission Corporation of Telangana State Limited  
Vidyut Soudha,  
Hyderabad - 500 082

**YADADRI THERMAL POWER EVACUATION SCHEME (5X800MW)-ERECTION  
OF 400KV QMDC LINE FROM YADADRI TPP, SWITCHYARD, TS GENCO TO  
400/220KV JANGAON SS (138.342KMS)-PTCC PROPOSAL**

1. Refer your letter No CE/400kv/SE-II/400kv/D3-A/F.YTPP/19/D.No 598/21 dt 01 Nov 2021 (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.

  
(Rakesh Kumar)  
Lt Col  
GSO 1 (Comn)  
for SO-in-C

**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  
O/o PGM (North), QA & Inspection Circle,  
D-Tax Building, Eastern Court, Janpath  
New Delhi-110001



