



भारत सरकार

Government of India
विद्युत मंत्रालय

Ministry of Power
केन्द्रीय विद्युत प्राधिकरण

Central Electricity Authority
पावर कम्युनिकेशन डवलपमेंट प्रभाग

Power Communication Development Division



No./CEA/PCD/PTCC/TNG-87/1628-1022

Date : 18.10.2019

The Divisional Engineer Telecom (PTCC),
QA & Inspection (T&D) circle, BSNL,
1st floor, Raj Bhavan Exchange,
No.26, Sardar Patel Road,
Guindy, Chennai-600032

Subject: Induced Voltage Calculation in respect of PTCC proposal for 220 kV DC line from proposed Transform Sun Energy Pvt Ltd pooling station to existing 400/220 kV SS Veltloor

Reference: i) BSNL letter no. SR-PTCC/STS/2457/03 dated 31.07.2019
ii) South Central Railway letter no. SG.85/4/3/PTCC/SCRSTS201936 RTD dated 30.05.2019
iii) Defence letter no. B/46937/Sigs 7(b)/1656 dated 07.08.2019

Sir,

The instant PTCC proposal has been examined. The low frequency induction on telecom cables of BSNL and Block & Telecom circuits of South Central Railway with respect to details furnished vide above references have been computed. The Soil Resistivity (SR) value has been taken as 25,000 Ohm-cm. The voltages likely to be induced on paralleling telecom cables of BSNL and Block & Telecom circuits of South Central Railway under Single Line to Ground fault condition are enclosed at Annex-I & II respectively. The screening factors, as applicable, have been considered. Vide ref. (iii) above, Defence Authority have issued No Objection Certificate (NOC) (a copy enclosed as Annex-III). Taking above into consideration, kindly take necessary action for PTCC route approval.

Encl.: As above

राज्य विद्युत प्राधिकरण
18/10/19
(R. P. Singh)
Director, PTCC

Copy to:

- 1) GM (S&T), South Central Railway, Head Quarters Office, Signal & Telecomm Branch, Rail Nilayam, Secunderabad, Telangana - 500025 (Annex - II only)
- 2) Chief Engineer, Construction, TSTRANSCO, Vidyut Soudha, Hyderabad - 500082

etc

Annex - I

Case No. SRPTCC/SAP/2457		SSA :				
CEA Case No: TNG-87		Mahaboobnagar				
Scale: 1:50000						
Name of Power line: 220 KV DC Line from proposed Transform Sun Energy Pvt ltd pooling station to existing 400/220 KV SS Veltor - LF comments .						
Length: 7.150 KMs						
SR value : 25000 Ω -cm				Type of Cable: PIJF		
No	Name of telecom line	LOP in KMs	MC in Ohms	FC in Amps	IV in Volts	Safe Separation Distance
1	Chinna Chinthakunta Exchange					
1	Exchange to Pillar 21	}				
2	Exchange to DP 00					
} OUT OF PARALLELISM						
2	Kowkuntla Exchange					
1	Exchange to Pillar 21	}				
2	Exchange to Pillar 22					
3	Exchange to Pillar 23					
} IV LESS THAN 430 V						
3	Addakkal Exchange					
1	Exchange to High Scholl pillar 21	}				
2	Exchange to MRO Office					
3	Exchange to Police station					
4	Exchange to SBI Bank side					
5	Exchange to Chinnamungal chedu					
6	Exchange to Thimmapally tanda Mini Pillar					
} IV LESS THAN 430 V						
4	Madanapuram Exchange					
1	Exchange to Danthanoor	}				
2	Exchange to Pillar					
3	Exchange to Local Distribution to DPs					
} IV LESS THAN 430 V						
	Kothakota Exchange					
1	Exchange to Palem Pillar					
IV LESS THAN 430 V						
राधेन्द्र प्रताप सिंह 18/10/19						
राधेन्द्र प्रताप सिंह RACHENDRA PRATAP SINGH Director केन्द्रीय विद्युत प्राधिकरण / C.E.A. विद्युत मंत्रालय / Ministry of Power भारत सरकार / Govt. of India नई दिल्ली / New Delhi-68						

ANNEXURE - II

Case No.: TNG-87

Name of the Power line: 220 kV DC line from proposed Transform
Sun Energy Pvt Ltd pooling station to existing 400/220 kV SS Veltoor

Map Scale : 1cm=500mts

Total Length : 7.150 Km.

Soil Resistivity : 25000 ohm-cm

S.No	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	IV in Volts.
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South Central Railway letter no. SG.85/4/3/PTCC/SCRTS201936 RTD dated 30.05.2019

Kaukuntla (KQQ) - Wanaparathi (WPR)	0.1	0.0002	7700	2
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राघवेंद्र प्रताप सिंह

18/10/19

राघवेंद्र प्रताप सिंह
RAGHVENORA PRATAP SINGH
निदेशक/Director
केन्द्रीय विद्युत प्राधिकरण/C.E.A.
विद्युत मंत्रालय/Ministry of Power
भारत सरकार/Govt. of India
नई दिल्ली/New Delhi-68

Tele : 23019746

TNG - 87
Annex - III
Directorate General of Signals
Signals - 7
General Staff Branch
Integrated HQ of MoD, (Army)
DHQ PO, New Delhi - 110011

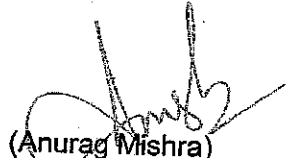
B/46937/Sigs 7(b)/1656

07 Aug 2019

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

**ERECTION OF 220KV DC LINE FROM SOLAR POWER PROJECT FED BY M/S TRANSFORM
SUN ENERGY LTD TO 400/220KV VELTOOR SUBSTATION IN MAHBUBNAGAR DISTRICT-
PTCC PROPOSALS-FORWARDED-REGARDING**

1. Ref your letter No Lr. No. TST/CE(Const)/SE(Const-1)/DE-II/F.PTCC-Transform Solar/D.No. 182/19 dt 13 May 2019 (copy att).
2. No Objection Certificate (NOC) is accorded based on inputs provided vide Map sheets received under your above mentioned letter.
3. Documents alongwith map sheets (in original) are returned herewith for your further necessary action.


(Anurag Mishra)
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

Divisional Engineer Telegraph (PTCC)
O/o GM (North); BSNL, QA & Inspection Circle,
CTS Compound, Africa Avenue Road,
Netaji Nagar, New Delhi-110023

for information