



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. : KNK-1188		
Induced Voltage (IV) calculation in respect of PTCC proposal of 220 kV SC line from 300 MW Solar Power Plant near Bannikuppe (Bay No. 204) to proposed 400/220 kV SS near Tadakal Village , Koppal District (4.29 km)- regd.		
S. No	Reference No.	Dated
(i)	TP Saurya Ltd: TPS/220kV/PTCC/BSNL/25-26/01	09.06.2025
(ii)	BSNL: SR-PTCC/KNK-1188/2	14.08.2025
(iii)	South Western Railway: SG/SWR/PTCC/KNK1188/2932	08.10.2025
(iv)	Defense: B/46937/Sigs 7(b)/4892	20.08.2025

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

DG Signals, MoD has issued No Objection Certificate (NOC) vide reference (iv) (attached 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 (k A)	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
220/33 kV PSS of TP Saurya Limited	74	50	0.049	347	204	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, 2 nd Floor, Sanchar Complex, WMS Compound, Jayanagar 5 th Block, 9 th Main, 47 th Cross, Bangalore-560041	
2.	PCSTE/SWR	Principal Chief Signal & Telecom Engineer, Rail Soudha, Gadag Road, Hubballi-580020	
3.	TP Saurya Limited	The Tata Power Company Limited, Corporate Centre, 34, Sant Tukaram Road, Carnac Bunder, Mumbai - 400009	Copy for information

ANNEXURE-I

CEA Case No.: KNK-1188 Name of the Power line: 220 kV SC line from 300 MW Solar Power Plant near Bannikuppe (Bay No. 204) to proposed 400/220 kV SS at Tadakal Village , Koppal			Map Scale : 1 cm= 500 m Total Length : 4.29 km S.R. Value : 1000 Ohm-cm		
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.

SWR Letter No: SG/SWR/PTCC/KNK1188/2932			Dated 08.10.2025		
1.	SOQ-BNA	2.1	0.0002	14802	3
2.	BNA-TLKL	0.65	0.00006	14404	1
3.	TLKL-BNP	0.3	0.00003	4178	0.12
4.	TLKL-SGNL	Out of Parallelism			
5.	BNP-KBL	Out of Parallelism			

Annexure II

KNK-1188

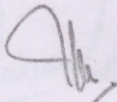
Directorate General of Signals (Signals-7)
General Staff Branch
Integrated HQ of MoD (Army)
DHQ PO, New Delhi -11

B/46937/Sigs-7(b)/4892 dt ^{ho} Aug 2025

General Manager (Project Incharge)
M.P. Power Transmission Package-I Ltd
2nd Floor, Niryat Bhawan, Rao Tularam Marg
Vasant Vihar, Opposite Army Hospital & Referral
New Delhi-110057, India

**PROPOSED 220KV S/C TRANSMISSION LINE ON D/C TOWERS FROM
300MW SOLAR POWER PLANT NEAR BANNIKUPPE (BAY No. 204) TO
EXISTING 400/220KV SUBSTATION AT VILLAGE-TADAKAL,
DIST- KOPPAL, KARNATAKA**

1. Ref your letter No TPS/220KV/PTCC/BSNL/25-26/01 dt 21 Jun 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

20/8/25

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.

ms Priya (DD)

6/02/09

Central Electricity Authority

PSCD Division

Diary No. *224*

Date *07-09-25*