



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 Division

CEA Case No. : KNK-1059		
Induced Voltage (IV) Calculation for PTCC proposal of 33 kV D/C line from 220/33 kV Pooling S/s, Thondihal village, Yelburga, Koppal to 33/0.8 kV 51 MW Solar power unit substation, Yelburga Taluk, Koppal (Length: 5 kms)		
S. No	Reference No.	Dated
(i)	RSOPL/PeakPower/PTCC/33 kV line/23-24/E/003	11.12.2023
(ii)	RSOPL E-mail:	10.07.2024
(iii)	RSOPL E-mail:	11.07.2024
(iv)	BSNL: SR-PTCC/SKT5928/2	25.06.2024
(v)	South Western Railway: SG/SWR/PTCC/RSOPL/2673	14.05.2024
(vi)	Defense: B/46937/Sigs7(b)/3712 (received via e-mail on 29.07.2024 from RSOPL)	01.04.2024

The PTCC proposal submitted vide reference (i) has been examined. The LF induction on communication circuits of BSNL and South Western Railway with respect to details furnished vide above references (iv) and (v) respectively have been computed. The voltage likely to be induced on paralleling communication cables of BSNL and South Western Railway under Single Line to Ground fault condition are enclosed at Annexure-I and Annexure-II respectively. The screening factors as applicable have been considered.

DG Signals, MoD vide above reference (vi) (enclosed as Annexure-III) have issued their No Objection Certificate (NOC) for charging of the line.

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
220/33 kV Pooling S/s, Thondihal village, Yelburga, Koppal	88.46	24	0.1201	505	304	NA	NA
33/0.8 kV 51 MW Solar power unit substation, Yelburga Taluk, Koppal	8	15	0.117	25	14	NA	NA

As per the details submitted by BSNL vide reference (iv) above, no telephone exchange is falling in the EPR zone of the proposed substations.

Taking the 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)	O/o CGM, QA & Inspection circle, 2 nd Floor, Sanchar complex, WMS compound, Jayanagar, 5 th block, 9 th main, 47 th cross, Bengaluru- 560 041	
2.	GM (S&T), South Western Railway	South Western Railway Headquarter, Rail Soudha, Hubballi – 580 023	
3.	M/s ReNew Surya Ojas Private Limited	ReNew Hub, Commercial Block-1, Zone-6, Golf Course Road, DLF City, Phase-V, Gurugram	Copy for information

ANNEXURE-I

CEA Case No.: KNK-1059			Map Scale : 1 cm= 500 m		
Name of the Power line: 33 kV D/C line from 220/33 kV Pooling S/s, Thondihal village, Yelburga, Koppal to 33/0.8 kV 51 MW Solar power unit substation, Yelburga Taluk, Koppal			Total Length : 5 km		
			S.R. Value : 20000 Ohm-cm		
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.
BSNL Letter No SR-PTCC/SKT5928/2 Date: 25.06.2024					
1	Mudhol TE to PGB Bank (A1-A2)		Out of parallelism		
2	Rajur to Various customers (B1-B2)		IV less than 430 V		
3	Sanagahal to various Customers (C1-C2)		Out of parallelism		
4	Kallur to Various Customers (D1-D2)		IV less than 430 V		
5	Kukunoor TE to PGB Bank Kukunoor (E1-E2)		Out of parallelism		

ANNEXURE-II

CEA Case No.: KNK-1059			Map Scale : 1 cm= 500 m		
Name of the Power line: 33 kV D/C line from 220/33 kV Pooling S/s, Thondihal village, Yelburga, Koppal to 33/0.8 kV 51 MW Solar power unit substation, Yelburga Taluk, Koppal			Total Length : 5 km		
			S.R. Value : 20000 Ohm-cm		
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.
South Western Railway: SG/SWR/PTCC/RSOPL/2673 Date: 14.05.2024					
1	KANR to SNGL	1.9	0.000286	10489	3
2	SNGL to YELBURGA	Out of parallelism			

E-mail: webstar@nic.in

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

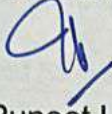
B/46937/Sigs 7(b)/3712

01 Apr 2024

✓ Senior Manager, Projects
ReNew Surya Ojas Private Limited
Corporate Off: ReNew Hub, Commercial Block-1
Zone-6, Golf Course Road, DLF City Phase-V
Gurugram-122009

**PTCC PROPOSAL FOR CONSTRUCTION OF 33KV DPDC (H-POLE) FROM
SOLAR PEAK POWER NEAR BANDIHAL VILLAGE TO PROPOSED 220/33KV
POOLING SUBSTATION, THONDIHALA VILLAGE, YELBURGA TALUK,
KOPPAL DISTRICT**

1. Refer your letter No RSOPL/Peak Power/33kV/PTCC/MoD/24-25/E/020 dt 21 Jan 2024 (copy att).
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)

Enclosures : As above

Copy to :-

The Divisional Engineer (PTCC)
'D' Wing, 3rd Floor, Admn Bdg
Telecom Complex,
Juhu Tara Road,
Santracruz West, Mumbai - 400054

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

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

- for information