

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-1064					
Induced Voltage (IV) Calculation for PTCC proposal of 33 kV S/C Feeder-08 from 220/33 kV Pooling Substation, Thondihala Koppal to Double Pole yard Tapping Point T-04 of RSOPL					
Peak Power Wind farm (Length: 8.6 kms).					
S. No	Reference No.	Dated			
(i)	RSOPL/Peak power/33kV/PTCC/24-25/014	10.01.2024			
(ii)	RSOPL E-mail:	10.07.2024			
(iii)	BSNL: SR-PTCC/SKT5932/2	25.06.2024			
(iv)	South Western Railway: SG/SWR/PTCC/KNK1064/2723	14.05.2024			
(v)	Defense: B/46937/Sigs 7(b)/3725	16.05.2024			

The PTCC proposal submitted vide reference (i) and (ii) has been examined. The LF induction on communication circuits of BSNL and South Western Railway with respect to details furnished vide above reference (iii) and (iv) respectively have been computed. The voltage likely to be induced on paralleling communication circuits 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 reference (v) has given their NOC for charging the line.

EPR Zones for proposed substations are mentioned below.

Name of the	Half	Fault	Resistance	d (mts)	d (mts)	d (mts)	d (mts) at
proposed SS	Diagonal	Current,	of earthmat,	at 430	at 650	at 7 kV	10 kV
	Distance,	I (kA)	R (Ohms)	V	V		
	D/2 (mts)						
220/33 kV	88.46	24	0.1201	505	304	NA	NA
Pooling							
Substation,							
Thondihala							
Koppal							
33 kV Feeder-08	6.01	6.2	0.429	31	19	NA	NA
Double Pole yard							
Tapping Point T-							
04							

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	O/o CGM, QA&I circle,	
	(PTCC), Southern Zone	2 nd floor, Sanchar Complex, WMS	
	,	Compound, Jayanagar, 5th block, 9th main,	
		47 th cross, Bengaluru- 560 041	
2.	GM (S&T), South	South Western Railway Headquarter, Rail	
	Western Railway	Soudha, Hubbali – 580 023	
	M/a DaNaw Suma Oias	ReNew Hub, Commercial Block-1, Zone-6,	
3.	M/s ReNew Surya Ojas	Golf Course Road, DLF City Phase-V,	Copy for information
	Private Limited	Gurugram – 122 009	

ANNEXURE-I

CEA Case No.: KNK-1064

Map Scale : 1 cm= 500 m

Total Length: 8.6 kms

Name of the Power line: 33 kV S/C Feeder-08 from 220/33 kV Pooling Substation, Thondihala Koppal to Double Pole yard Tapping Point T-04

S.R. Value : 25000 Ohm-cm

of RSOPL Peak Power Wind farm

		Length of	Mutual	Effective	I.V
		Parallelis m	Coupling	Fault current	in
S.No.	Telecom. Details	in Km.	in Ohms.	in Amps.	Volts.

BSNL: SR-PTCC/SKT5932/2 Dated: 25.06.2024					
1	A1 – A2 (Sanganahal)	IV less than 430 V			
2	B1- B2 (Rajur)	IV less than 430 V			

ANNEXURE-II

Map Scale : 1 cm= 500 m

Total Length: 8.6 kms

S.R. Value : 25000 Ohm-cm

CEA Case No.: KNK-1064

Name of the Power line: 33 kV S/C Feeder-08 from 220/33 kV Pooling Substation, Thondihala Koppal to Double Pole yard Tapping Point T-04

of RSOPL Peak Power Wind farm

		Length of		Effective	
		Parallelis	Mutual	Fault	I.V
		m	Coupling	current	in
S.No.	Telecom. Details	in Km.	in Ohms.	in Amps.	Volts.

South Western Railway: SG/SWR/PTCC/KNK1064/2723 Dated: 14.05.2024					
1	KANR – SGNL	3.2	0.00124	16254	20
2	SGNL - HAPR	1.1	0.00072	5556	4

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)/3725

6 May 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 33KV SCOH LINE (33KV FEEDER NO 8) FROM THE 220/33 KV POOLING S/S AT THONDIHALA VILLAGE, YELBURGA TALUK, KOPPAL DISTRICT TO PROPOSED RENEW (RSOPL) WIND 33KV WIND POWER DOUBLE POLE YARD TAPPING POINT T-04

- 1. Refer your letter No RSOPL/Peak Power/33kV/PTCC/MoD/24-25/E/038 dt 03 Feb 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. \bigcirc \(\lambda_k \)

(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

Chief Engineer, PSCD Division Central Electricity Authority Room No 702 (North Wing) Sewa Bhawan, R.K. Puram, Sector-1 New Delhi-110066

The DET(PTCC), Northern Zone Bharat Sanchar Nigam Limited Olo PGM (North), QA & Inspection Circle, DiTax Building, Eastern Court, Janpath New Delhi-110001 for information

Central Electricity Authority PCD Division

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