

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-1116					
Induced Voltage (IV) Calculation for PTCC proposal of 33 kV Feeder-4 (partially S/C and partially D/C) from the 220/33kV Pooling Substation of M/s RSRPL at Huyilagola village, Gadag to 33kV wind power Double pole yard tapping point SGHB-94 N3 of RSRPL (Length: 6.7 kms D/C + 14.8 kms S/C :Total = 21.5 kms).					
S. No	Reference No.	Dated			
(i)	RSRPL/RTC1-W2/33 kV/PTCC/CEA/24-25/E/076	22.04.2024			
(ii)	BSNL: SR-PTCC/SKT6142/7	17.09.2024			
(iii)	South Western Railway: SG/SWR/PTCC/KNK1116/2749	20.06.2024			
(iv)	Defense: B/46937/Sigs 7(b)/3937	22.07.2024			

The PTCC proposal submitted vide reference (i) has been examined. The LF induction on communication circuits of South Western Railway with respect to details furnished vide above reference (iii) have been computed. The voltage likely to be induced on paralleling communication cables 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), BSNL vide reference (ii) and DG Signals, MoD vide above reference (iv) (enclosed as Annexure-II) have issued their No Objection Certificate (NOC) for charging of the line.

EPR Zones for	nronosed	substations	are mentioned	helow
LI IX LUIIUS IUI	proposeu	substations	are membered	DCIOW.

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
220/33kV Pooling Substation of M/s RSRPL at Huyilagola village, Gadag	97.5	24	0.2005	994	624	NA	NA
33kV wind power Double pole yard tapping point SGHB-94 N3	14.5	25	0.1143	82	49	NA	NA

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

As per the decision taken in 111th and 112th CLPTCC meeting, necessary instructions for "Deemed Energization approval" shall be specified while issuing RAC.

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, 5 th block, 9 th main, 47 th cross,		
		Bengaluru- 560 041		
2.	PCSTE/SWR	Principal Chief Signal & Telecom Engineer,		
		Rail Soudha, Gadag Road, Hubballi-580020		
3.	M/s ReNew Surya	ReNew Hub, Commercial Block-1, Zone-6,	Copy	for
٥.	Roshni Private Limited	Golf Course Road, Gurugram – 122 009	information	

ANNEXURE-I

CEA Case No.: KNK-1116

Name of the Power line: 33 kV Feeder-4 (partially S/C and partially D/C) from the 220/33kV Pooling Substation of M/s RSRPL at Huyilagola village, Gadag to 33kV wind power Double pole yard tapping point SGHB-94 N3 of RSRPL

Map Scale : 1 cm = 500 m

Total Length: 6.7 kms D/C + 14.8 kms

S/C: Total = 21.5 kms

S.R. Value : 30000 Ohm-cm

S.No.	Telecom. Details	Length of Parallelis m in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.		
South Western Railway: SG/SWR/PTCC/KNK1116/2749 Date: 20.06.2024							
1	GDG to HBL	3.4	0.01574	15312	241		
2	HBL to BLR	1.2	0.00431	13527	58		

1/43246/2024

Directorate General of Signals Signals 7

KNK-1116 General Staff Branch Integrated HQ of MoD, (Army)

DHQ PO, New Delhi - 110011

B/46937/Sigs 7(b)/3937/

Jul 2024

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

33KV FEEDER NO-4 PTCC PROPOSAL (PARTIALLY SC AND PARTIALLY DC LINE) FROM THE 220/33KV POOLING S/S AT HUYILAGOLA VILLAGE TO PROPOSED RENEW (RSRPL) WIND 33KV WIND POWER DOUBLE POLE YARD **TAPPING POINT SGHB-94 N3**

- 1. Refer your letter No. RSRPL/RTC1-W2/33 KV/PTCC/MoD/24-25/E/096 dt 06 May 2024 (copy att).
- No Objection Certificate (NOC) is accorded based on inputs provided as per Map sheet received vide your letter mentioned above.
- 3. Documen's 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

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

- for information