

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-1094					
Induced Voltage (IV) Calculation for PTCC proposal of 33 kV S/C Feeder-04 from 220/33 kV					
Pooling Substation of M/s RSRPL at Hirehandigol village, Gadag to 33 kV Wind Power Double pole yard tapping point SGHB-78 of RSRPL (Length: 23.7 kms).					
S. No	Reference No.	Dated			
(i)	RSRPL/RTC1-W1/33 kV/PTCC/CEA/24-25/E/046	20.03.2024			
(ii)	RSRPL E-mail	28.08.2024			
(iii)	BSNL: SR-PTCC/SKT6127/7	14.08.2024			
(iv)	South Western Railway: SG/SWR/PTCC/KNK1094/2739	03.07.2024			
(v)	Defense: B/46937/Sigs 7(b)/3895	25.07.2024			

The PTCC proposal submitted vide reference (i) and (ii) has been examined. The LF induction on communication circuits of South Western Railway with respect to details furnished vide above references (iv) has 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 (iii) and DG Signals, MoD vide reference (v) have 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	93.51	24	0.2005	953	599	NA	NA
Pooling							
Substation of M/s							
RSRPL at							
Hirehandigol							
village, Gadag							
33 kV Wind	6.01	17.88	0.1201	24	14	NA	NA
Power Double							
pole yard tapping							
point SGHB-78							

As per the details submitted by BSNL, No Telephone exchange is falling within the EPR zone of proposed substation

Taking above into consideration, necessary action for issuance of PTCC route approval (RAC) shall 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.	2	GM (S&T), South	South Western Railway Headquarter, Rail		
	۷.	Western Railway	Soudha, Hubbali – 580 023		
2		M/s ReNew Surya	ReNew Hub, Commercial Block-1, Zone-6,	Copy	for
3.	3.	Roshni Private Limited	Golf Course Road, Gurugram – 122 009	information	

ANNEXURE-I

CEA Case No.: KNK-1094

Name of the Power line: 33 kV S/C Feeder-04 from 220/33 kV Pooling Substation of M/s RSRPL at Hirehandigol village, Gadag to 33 kV Wind

Power Double pole yard tapping point SGHB-78 of RSRPL

Map Scale : 1 cm = 500 m

Total Length: 23.7 km

S.R. Value : 25000 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 Letter No SG/SWR/PTCC/KNK1094/2739 Date: 03.07.2024							
1	NGR to LKT	3.7	0.00026	9831	3		
2	LKT to BKIT	1.7	0.00059	14157	8		
3	BKIT to GDG	Out of parallelism					
4	GDG to HBL	4.8	0.00089	16854	15		

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

B/46937/Sigs 7(b)/3895/

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

VS Jul 2024

PTCC PROPOSAL FOR 33KV SCOH LINE (33KV FEEDER NO-4) FROM THE 220/33KV POOLING SUBSTATION, HIREHANDIGOL VILLAGE, GADAG TALUK, GADAG DISTRICT TO 33KV WIND POWER DOUBLE POLE YARD TAPPING POINT SGHB-78

- 1. Refer your letter No. RSRPL/RTC1-W1/33 KV/PTCC/MOD/24-25/E/066 dt 22 Apr 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. Documens 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
Telli-110001

- for information