

I/28298/2023



सत्यमेव जयते



भारत सरकार
Government of India
विद्युत मंत्रालय
Ministry of Power
केन्द्रीय विद्युत प्राधिकरण
Central Electricity Authority
विद्युत संचार विकास प्रभाग
Power Communication Development Division

CEA Case No. : KNK-1008		
IV computation for PTCC proposal of 220 kV S/C line on D/C and M/C towers from proposed 220/33 kV Pooling Substation, Hirehandigol Village, Gadag Taluk, Gadag District to the proposed 400/220 kV Koppal PS (ISTS), Talakalla Village, Kukanura Taluk, Gadag District (53.103 km)		
S. No	Reference No.	Dated
(i)	RSPPL/RTCW1/PTCC/220kV line/22-23/E/064 received on 29.08.2022	NIL
(ii)	RSPPL/RTCW1/PTCC/220kV line/22-23/E/203	15.03.2023
(iii)	CEA Letter: I/24094/2022	14.10.2022
(iv)	CEA Letter: I/26173/2022	08.02.2023
(v)	BSNL: SR-PTCC/SKT4656/09	12.05.2023
(vi)	South Western Railway: SG/SWR/PTCC/RSPPL/2477	25.01.2023
(vii)	Defense: B/46937/Sigs 7(b)/3154	15.02.2023

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 references (v) and (vi) 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. Vide reference (vii) above, DG Signals, MoD has issued No Objection Certificate (NOC) (enclosed as Annexure-III).

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
400/220 kV Koppal S/s	225	37.8	0.023	230	76	NA	NA
220/33 kV Pooling Substation, Hirehandigol village, Gadag	93.5	24	0.2	950	597	NA	NA

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

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

Encl.: As above

Ken. J. B.
Director 13.6.2023

I/28298/2023

To,

1.	Divisional Engineer (PTCC), Southern Zone	BSNL, Inspection Circle, 1st Floor, Raj Bhavan Exchange No. 26, Sardar Patel Road, Guindy, Chennai-600032	
2.	Principal Chief Signal & Telecom Engineer	South Western Railway, Rail Soudha, Gadag road, Hubballi - 20	
3.	Senior Manager, Projects - Wind	M/s ReNew Solar Power Private Limited, ReNew Hub, Commercial Block-1, Zone-6, Golf Course Road, DLF City Phase-V, Gurugram - 122 009	Copy for information

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ANNEXURE-I

CEA Case No.: KNK-1008					
Name of the Power line: 220 kV S/C line on D/C and M/C towers from proposed 220/33 kV Pooling Substation, Hirehandigol Village, Gadag Taluk, Gadag District to the proposed 400/220 kV Koppal PS (ISTS), Talakalla Village, Kukanura Taluk, Gadag District		Map Scale : 1 cm= 500 m			
		Total Length : 53.103 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/SKT4656/09 Date: 12.05.2023					
I	Gadag Telephone Exchange				
1	Exchange to Puttaraj Circle (E-E1)				IV less than 430 V
2	Exchange to Old DC Circle (E-E2)				IV less than 430 V
3	Exchange to Rotary Circle (E-E3)				IV less than 430 V
4	Exchange to Gandhi Circle (E-E4)				IV less than 430 V
II	Betageri Telephone Exchange				
1	Exchange to Health Camp (D-D1)				IV less than 430 V
2	Exchange to Narasapur (D-D2)	1.9	0.00391	18306	72
3	Exchange to T Market (D-D3)				Out of parallelism
III	Hombal Telephone Exchange				
1	Exchange to Gadag road (A-A1)				IV less than 430 V
2	Exchange to Venkatapur (A-A2)				IV less than 430 V
3	Exchange to Panchayat (A-A3)	1.5	0.00297	22871	68
IV	Hulakoti Telephone Exchange				
1	Exchange to Hubli road (B-B1)				Out of parallelism
2	Exchange to Eng College(B-B2)				IV less than 430 V
3	Exchange to Dundur (B-B3)				Out of parallelism
V	Kotumachagi Telephone Exchange				
1	Exchange to Narayanpur (C-C1)				IV less than 430 V
2	Exchange to Market (C-C2)				IV less than 430 V
VI	Bannikoppa Telephone Exchange				
1	Bannikoppa MDF to PGB Bank				IV less than 430 V
VII	Tadakal Telephone Exchange				
1	Tadakal MDF to PGB Bank				IV less than 430 V

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ANNEXURE-II

CEA Case No.: KNK-1008		Map Scale : 1 cm= 500 m			
Name of the Power line: 220 kV S/C line on D/C and M/C towers from proposed 220/33 kV Pooling Substation, Hirehandigol Village, Gadag Taluk, Gadag District to the proposed 400/220 kV Koppal PS (ISTS), Talakalla Village, Kukanura Taluk, Gadag District		Total Length : 53.103 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/RSPPL/2477 Date: 25.01.2023					
1	Annigeri (NGR) to Hulkoti (LKT)	Out of parallelism			
2	Hulkoti (LKT) to Binkadakatti (BKIT)	4.6	0.00145	11724	17
3	Binkadakatti (BKIT) to Gadag Bypass (GDG BP)	2.6	0.00067	11940	8
4	Gadag Jn. (GDG) to Kanginhal (KGX)	8.9	0.00464	8405	39
5	Kanginhal (KGX) to Harlapur (RLP)	9.3	0.00384	8594	33
6	Harlapur (RLP) to Sompur Road (SOQ)	7.7	0.00181	8288	15
7	Sompur Road (SOQ) to Banni Koppa (BNA)	10.1	0.0051	15687	80
8	Banni Koppa (BNA) to Talakal (TLKL)	3.3	0.0193	16529	319
9	Talakal (TLKL) to Bhanapur (BNP)	3	0.0018	20555	37
10	Bhanapur (BNP) to Koppal (KBL)	Out of parallelism			
11	Gadag Jn (GDG) to Gadag Bypass (GDG BP)	1.9	0.0004	11423	5
12	Gadag Bypass (GDG BP) to Hombal (HBL)	3.15	0.0066	10909	72
13	Hombal (HBL) to Balganur (BLR)	Out of parallelism			
14	Talakal (TLKL) to Kuknoor (KANR)	6.1	0.00103	21359	22
15	Kuknoor (KANR) to Sanganhall (SGNL)	Out of parallelism			

Tele : 23019746

KNK-1008
Directorate General of Signals
Signals - 7
General Staff Branch
Integrated HQ of MoD, (Army)
DHQ PO, New Delhi - 110011


B/46937/Sigs 7(b)/3154

15 Feb 2023

Senior Manager, Project Execution
ReNew Solar Power Private Limited
ReNew Hub, Commercial Block-1, Zone-6
Golf Course Road, DLF City Phase-V
Gurugram-122009

PTCC PROPOSAL FOR 220KV S/C LINE ON D/C AND M/C TOWERS FROM PROPOSED 220/33KV POOLING SUBSTATION, HIREHANDIGOL VILLAGE, GADAG TALUK, GADAG DISTRICT TO THE PROPOSED 400/220KV KOPPAL PS (ISTS), TALAKALLA VILLAGE, KUKANURA TALUK, GADAG DISTRICT

1. Refer your letter No RSPPL/RTCW1/PTCC/220kv line/22-23/0135 dt 23 Nov 2022 (copy att).
2. **No Objection Certificate (NOC) is accorded** based on inputs provided as per Map sheets received vide your letter mentioned above.
3. Documents alongwith map sheets (in original) are returned herewith for your further necessary action.


(SK Sharma)
Lt Col
GSO 1 (Comn)
for Offg ADG T

Enclosures : (As above)

Copy to :-

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

- for information

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

AD

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