

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

#### **Power Communication Development Division**

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CEA Case No.: KNK-1041						
Induced Voltage (IV) Calculation for PTCC proposal for 33 kV S/C OH line for Feeder No. 5 on RSJ Pole with AL59 Dog conductor and AL59 TW (Eco) Panther conductor from 220/33 kV Vena Energy Vidyuth Private Limited S/s at Jumalapura Village, Kushtagi to proposed						
33 kV unit substation (Length: 9.09 km)						
S. No	Reference No.	Dated				
(i)	VENA/33kVPTCC/FED05	30.05.2023				
(ii)	BSNL: SR-PTCC/SKT5094/02	19.12.2023				
(iii)	South Western Railway: SG/SWR/PTCC/KNK1041/2613	06.11.2023				
(iv)	Defense: B/46937/Sigs 7(b)/3432	01.09.2023				

The PTCC proposal submitted vide reference (i) has been examined. The LF induction on communication circuits of BSNL with respect to details furnished vide above references (ii) have been computed. The voltage likely to be induced on paralleling communication cables of BSNL under Single Line to Ground fault condition are enclosed at Annexure-I. The screening factors as applicable have been considered. South Western Railway and DG Signals, MoD have issued No Objection Certificate (NOC) vide reference (iii) and (iv) (enclosed as Annexure-II) respectively.

EPR Zones for proposed substations are mentioned below.

Name of the proposed SS	Half Diagonal	Fault Current,	Resistance of	d (mts) at 430 V	d (mts) at 650 V	d (mts) at 7 kV	d (mts) at 10
proposed 55	Distance, D/2 (mts)	I (kA)	earthmat, R (Ohms)	ut 430 v	050 1	at / K v	kV
220/33 kV Vena Energy Vidyuth Private Limited S/s at Jumalapura Village, Kushtagi	113.1	28	0.2032	1383	877	NA	NA
33/0.69 kV Unit substation for Feeder No. 5	12.7	20	0.6184	353	229	10	3

As per the details submitted by BSNL vide reference (ii) 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

#### **Director**

# To,

1.	Divisional Engineer	O/o CGM, QA & Inspection circle, 2 <sup>nd</sup>	
	(PTCC)	Floor, Sanchar complex, WMS compound,	
		Jayanagar, 5 <sup>th</sup> block, 9 <sup>th</sup> main, 47 <sup>th</sup> cross,	
		Bengaluru- 560 041	
2.	M/s Vena Energy Vidyuth Private Limited	2/1, First Floor, Embassy Icon Annexe Infantry Road, Bengaluru	Copy for information

# ANNEXURE-I

CEA Ca	se No.: KNK-1041					
with AL 220/33	Name of the Power line: 33 kV S/C OH line for Feeder No. 5 on RSJ Pole with AL59 Dog conductor and AL59 TW (Eco) Panther conductor from 220/33 kV Vena Energy Vidyuth Private Limited S/s at Jumalapura Village, Kushtagi to proposed 33 kV unit substation		Map Scale : 1 cm= 500 m  Total Length : 9.09 km  S.R. Value : 20000 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.	
	BSNL Letter No: SR-PTCC	  SKT5094/02	   Date: 19.12.202	23		
I	Tavaragera Telephone Exchange					
1	Exchange to Menadhal road (T-T1)					
2	Exchange to Kushtagi road (T-T2)	Out of parallelism				
3	Exchange to KEB office (T-TA)					
4	KEB office to Temple road (TA-T3)					
5	Exchange to Police Station (T-T4)					
6	KEB office to Killharhati road (TA-T5)					
7	KEB office to Sindhanoor road (TA-T6)					
II	Hiremanpura Telephone Exchange	1				
1	Exchange to Navalhalli road (H-H1)					
2	Exchange to Gumagera road (H-H2)		IV less th	han 430 V		
3	Exchange to MG road (H-H2)					

#### ANNEXURE-II

Tele: 23019746

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

B/46937/Sigs 7(b)/3432

Vena Energy Vidyuth Private Limited 2/1, 1<sup>st</sup> Floor, Embassy Icon Annexe, Infantry Road, Bangalore-560001

Karnataka, India

PTCC PROPOSAL FOR LAYING OF 33KV OVERHEAD LINE FOR FEEDER NO. 5 FOR WIND POWER PROJECT UNDER SECI BID IN KOPPAL DISTRICT, KARNATAKA (LENGTH: 9.09 KM)

- Refer your letter No. Nil dt 19 Jun 2023 (copy att).
- No Objection Certificate (NOC) is accorded based on inputs provided as per Map sheets received vide your letter mentioned above.
- Documents alongwith map sheets (in original) are returned herewith for your further necessary action.

(SK Sharma)
Lieutenant Colonel

General Staff Officer Grade 1 (Communication) for Additional Director General (Telecommunication)

↑ Sep 2023

Enclosures : As above

Copy to :-

The Divisional Engineer (PTCC)
'D' Wing, 3<sup>rd</sup> 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

Sh. Pratect