

I/33793/2024



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-1032		
Induced Voltage (IV) Calculation for PTCC proposal of 220 kV S/C line on D/C towers from 220/33 kV M/s Vena Energy Vidyuth Pvt. Ltd PSS, Jumlapur to 400/220 kV Gadag GIS of PGCIL (Length: 56.02 km)		
S. No	Reference No.	Dated
(i)	Vena Energy Vidyuth Pvt. Ltd.: NIL (received on 28.04.2023)	NIL
(ii)	Vena Energy Vidyuth Pvt. Ltd.: NIL (received on 01.02.2024)	NIL
(iii)	BSNL: SR-PTCC/SKT5302/02	17.11.2023
(iv)	South Western Railway: SG/SWR/PTCC/KNK1032/2606	02.11.2023
(v)	Defense: B/46937/Sigs7(b)/3604	31.01.2024

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 (iii) 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 (iv) and (v) respectively.

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
220/33 kV Vena Energy Vidyuth Private Limited S/s at Jumalapura Village, Kushtagi	113.1	28	0.2032	1383	877	NA	NA
400/220 kV Gadag (GIS) PGCIL	164.45	30	0.114	1144	701	NA	NA

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

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Taking the 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 (PTCC)	O/o CGM, QA & Inspection circle, 2 nd Floor, Sanchar complex, WMS compound, Jayanagar, 5 th block, 9 th main, 47 th 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

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ANNEXURE-I

CEA Case No.: KNK-1032		Map Scale : 1 cm= 500 m			
Name of the Power line: 220 kV S/C line on D/C towers from 220/33 kV M/s Vena Energy Vidyuth Pvt. Ltd PSS, Jumlapur to 400/220 kV Gadag GIS of PGCIL		Total Length : 56.02 km			
		S.R. Value : 25000 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/SKT5302/02 Date: 17.11.2023					
I	Kushtagi Telephone Exchange				
1	Exchange to Gada road (K-K1)				IV less than 430 V
2	Exchange to Koppal road (K-K2)				
3	Exchange to NH side (K-K3)				
4	Exchange to Hanumasagar Road (K-K4)				
II	Taluvagera Telephone Exchange				
1	Exchange to Kushtagi Road (T-T1)				IV less than 430 V
2	Exchange to Taluvagera Village (T-T2)				
3	Exchange to Kushtagi Road (T-T3)				
III	Gajendragad Telephone Exchange				
1	Exchange to SBI Bank (A-A1)				Out of parallelism
2	Exchange to Mahendrakar Circle (A-A2)				
3	Exchange to Agassi Pillar (A-A3)				
4	Exchange to Chinamma Circle (A-A4)				
5	Exchange to Kaakaleshwar Pillar (A-A5)				
6	Exchange to APMC (A-A6)				