

I/34548/2024



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-1049		
Induced Voltage (IV) calculation in respect of PTCC proposal for 220 kV D/C Transmission Line from Serentica Renewable India 1 Pvt Ltd PS to Koppal SS (4.6 km) - regd.		
S. No	Reference No.	Dated
(i)	Serentica : Serentica/PTCC/2023-24/21	02.09.2023
(ii)	BSNL: SR-PTCC/SKT5442/02	20.02.2024
(iii)	South Western Railway: SG/SWR/PTCC/SERENTICA/2650	08.02.2024
(iv)	Defense: B/46937/Sigs 7(b)/3533	14.11.2023

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

EPR details for the proposed substation is given below.

Name of the 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
220kV Serentica Solar PSS	82.23	35	0.1616	999.4	633.3	NA	NA

As per the details submitted by BSNL, no telecom exchanges are lying in the EPR zone of the proposed substation.

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

Encl.: As above

Chief Engineer

I/34548/2024 To,

1.	Divisional Engineer Telecom (PTCC), Southern Zone	BSNL, Inspection Circle, 2 nd Floor, Sanchar Complex, WMS Compound, Jayanagar 5 th Block, 9 th Main, 47 th Cross ,Bangalore- 560041
2.	PCSTE/SWR	Principal Chief Signal & Telecom Engineer, Rail Soudha, Gadag Road, Hubballi-580020
3.	Serentica Renewables India 1 Pvt Ltd	DLF Cyber Park, 9 th floor, Tower-B Udyog Vihar, Phase-III, Sector- 20, Gurugram-122008, Haryana

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ANNEXURE-I

CEA Case No.: KNK-1049 Name of the Power line: 220 kV D/C Transmission Line from Serentica Renewable India 1 Pvt Ltd PS to Koppal SS		Map Scale : 1 cm= 500 m Total Length : 4.6 km S.R. Value : 1,00,000 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/SKT5442/02		Dated 20.02.2024
1.	Kavaloor TE to PGB Bank Route	Out of Parallelism
2.	Bannikkoppa TE to PGB Bank Route	Out of Parallelism
3.	Tadkal to SBI Cable Route	Out of Parallelism

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ANNEXURE-II

CEA Case No.: KNK-1049 Name of the Power line: 220 kV D/C Transmission Line from Serentica Renewable India 1 Pvt Ltd PS to Koppal SS			Map Scale : 1 cm= 500 m Total Length : 4.6 km S.R. Value : 1,00,000 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 Letter No: SG/SWR/PTCC/SERENTICA/2650 Dated 08.02.2024					
1.	SOQ-BNA	0.35	0.0002	28153	6
2.	BNA-TLKL	Out of Parallelism			
3.	TLKL-BNP	Out of Parallelism			
4.	BNP-KBL	Out of Parallelism			
5.	TLKL-KANR	Out of Parallelism			

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

NA/K-1049

B/46937/Sigs 7(b)/3533

14 Nov 2023

Serentica Renewables India 1 Private Limited
Regd Office: DLF Cyber Park, 9th Floor
Tower-B Udyog Vihar, Phase-III
Sector-20, Gurugram-122008, Haryana

**PTCC ROUTE APPROVAL WITH REFERENCE TO INSTALLATION OF
SERENTICA RENEWABLE INDIA 1 PVT LTD PS-KOPPAL PS 220KV
TRANSMISSION LINE THROUGH OF SERENTICA RENEWABLE
INDIA 1 PVT LTD**

1. Refer your letter No Serentica/PTCC/2023-24/21 dt 02 Sep 2023 (copy att).
2. **No Objection Certificate (NOC) is accorded** based on inputs provided as per Map sheet received vide your letter mentioned above.
3. Documents alongwith map sheets (in original) are returned herewith for your further necessary action.



(SP Choyal)
Lieutenant Colonel
General Staff Officer Grade 1 (Communication)
for Additional Director General (Telecommunication)

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

Central Electricity Authority

PCD Division

File No. *1004*
S/P-22

PPU.
31/10/23
09/10
Sh. Karan