

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-1102

Induced Voltage (IV) Calculation for PTCC proposal of 33 kV XLPE AL, Ar UG cable (3Cx300 sq. mm & 3Cx500 sq mm) from proposed 220/33 kV 153.6 MW Hybrid Power Project PSS of M/s KSPPL at Alwandi village, Koppal to proposed solar Feeder No. 1 comprising of 02 No. of 0.66-0.66/33 kV IDT substation (Block 1 & 2) of M/s KSPPL at Alwandi village, Koppal (Length: 1.4895 km)

S. No	Reference No.	Dated
(i)	KSPPL/KOPPAL/CEA/PTCC/SOLAR/01	04.04.2024
(ii)	BSNL: SR-PTCC/SKT5982/2	02.07.2024
(iii)	South Western Railway: SG/SWR/PTCC/KNK1102/2769	22.08.2024
(iv)	Defense: B/46937/Sigs 7(b)/3856	12.06.2024

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 (ii) has 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.

PCSTE, SWR vide reference (iii) and DG Signals, MoD vide reference (iv) has 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 153.6	88	44.7	0.0428	304	171	NA	NA
MW Hybrid							
Power Project							
PSS of M/s							
KSPPL at							
Alwandi village,							
Koppal							

0.66-0.66/33 kV	11.4	25	0.0299	8	2	NA	NA
IDT substation							
(Block 1 & 2)							

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 may be taken under intimation to this office.

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, 5th block, 9th main,	
		47 th cross, Bengaluru- 560 041	
	M/s Kleio Solar	9 th Floor, My Home Twitza, Plot No. 30/A,	
2.	Power Private	TSIIC Hyderabad Knowledge City,	Copy for information
	Limited	Raidurg, Hyderabad – 500 081	

ANNEXURE-I

CEA Cas	e No.: KNK-1102					
Name of the Power line: 33 kV XLPE AL, Ar UG cable (3Cx300 sq. mm			Map Scale : 1 cm= 500 m			
	0 sq mm) from proposed 220/33 kV 153.6 MW I SS of M/s KSPPL at Alwandi village, Koppal to p	Total Length: 1.4895 km				
	Feeder No. 1 comprising of 02 No. of 0.66-0.66/33 kV IDT substation			S.R. Value: 2000 Ohm-cm		
(Block 1	& 2) of M/s KSPPL at Alwandi village, Koppal	1				
		Length of		Effective		
		Parallelis	Mutual	Fault	I.V	
		m	Coupling	current	in	
S.No.	Telecom. Details	in Km.	in Ohms.	in Amps.	Volts.	
BSNL Letter No SR-PTCC/SKT5982/2 Date: 02.07.2024						
1	Alwandi TE to Bus Stand road	Out of parallelism				

Signals - 7

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

Jun 2024

B/46937/Sigs 7(b)/3856

Kleio Solar Power Private Ltd 9th Floor, My Home Twitza, Plot No. 30/A TSIIC Hyderabad Knowledge City, Raidurg Hyderabad, Telangana-500081

PTCC PROPOSAL FOR CONSTRUCTION OF 33KV XLPE,AL,AR CABLES (3CX 300SQ MM & 3CX500 SQ MM)THROUGH UNDERGROUND FROM PROPOSED 33/220KV 153.6MW HYBRID POWER PROJECT POLLING SUBSTATION OF M/S KLEIO SOLAR POWER PVT LTD AT ALWANDI VILLAGE IN KOPPAL TALUK & DISTRICT TO PROPOSED SOLAR FD#1 INVERTER DUTY TRANSFORMERS COMPRISING OF 02 NOS OF 0.66-0.66/33 KV INVERTER DUTY TRANSFORMERS (BLCCK-1&2) SUBSTATION OF M/S KLEIO SOLAR POWER PV LTD AT ALWANDI VILLAGE IN KOPPAL TALUK & DISTRICT, KARNATKA

- 1. Refer your letter No KSPPL/KOPPAL/CEA/PTCC/SOLAR/01 dt 04 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. Documents 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,
DeTax Building, Eastern Court, Janpath

- for information