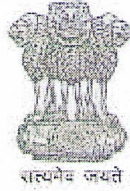


I/30494/2023



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-1031		
Induced Voltage (IV) calculation for PTCC proposal of 220 kV SC line on DC tower from Shirur 220/33 kV Pooling Substation of M/s Ayana Renewable Power Six Pvt. Ltd. to 400/220 kV Koppal (Tadakkal) SS (24 km)- regd.		
S. No	Reference No.	Dated
(i)	M/s Ayana Renewable Power Six Pvt Ltd: AYANA/KAR/220KV TL/PTCC/New Delhi/013	21.04.2023
(ii)	M/s Ayana Renewable Power Six Pvt Ltd: Email	14.09.2023
(iii)	BSNL: SR-PTCC/SKT 5080/6	31.08.2023
(iv)	South Western Railway: SG/SWR/PTCC/ARPSPL/2559	07.06.2023
(v)	Defense: B/46937/Sigs 7(b)/3353	07.07.2023

The PTCC proposal and related details submitted vide reference (i) & (ii) have been examined. The LF induction on communication circuits of BSNL and South Western Railway with respect to details furnished vide above reference (iii) & (iv) 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 & II respectively. The screening factors as applicable have been considered. Vide reference (v) 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	NIL	NIL
Shirur 220/33 kV PS of M/s ARPSPL	75.47	11200	0.411	732	459	NIL	NIL

As per the details submitted by BSNL vide reference (iii) above, no telephone exchanges are falling 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


 21/9/23
Chief Engineer

To,

I/30494/2023

1.	Divisional Engineer (PTCC), Southern Zone	BSNL, Inspection Circle, 1st Floor, Raj Bhavan Exchange No. 26, Sardar Patel Road, Guindy, Chennai-600032
2.	PCSTE	South Western Railway, Rail Soudha, Gadag Road, Hubballi - 20
3.	M/s Ayana Renewable Power Six Pvt Ltd	S2904, 29 th Floor, World Trade Center, Brigade Gateway Campus, #26/1, Dr. Rajkumar Road, Malleswaram – Rajajinagar Bangalore - 560055 - Copy for information

I/30494/2023

ANNEXURE-I

CEA Case No.: KNK-1031		Map Scale : 1 cm= 500 m			
Name of the Power line: 220 kV SC line on DC tower from Shirur 220/33 kV Pooling Substation of M/s Ayana Renewable Power Six Pvt. Ltd. to 400/220 kV Koppal (Tadakkal) SS		Total Length : 24 km		S.R. Value : 30,000 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/SKT 5080/6 Date: 31.08.2023					
	HUBLI SSA				
I	LAKKUNDI EXCHANGE				
1	LAKKUNDI Exge to Kanaginahall (A-A1)	Out of parallelism			
2	LAKKUNDI Exge to Sambhapur (A-A2)				
3	LAKKUNDI Exge to Harlapura (A-A3)				
	HALLIGUDI EXCHANGE				
1	HALLIGUDI Exge to Venkatapur (B-B1)	4.2	0.1034	6180	639
2	HALLIGUDI Exge to Hallikeri (B-B2)	6.5	0.1123	5752	646
3	HALLIGUDI Exge to Timmpura (B-B3)	IV less than 430 V			
	RAICHUR SSA				
1	Bannikoppa Exge to Kavaloor Exge (D1-D2)	Out of parallelism			
2	Tadakal Exge to Kukanoor Exge (E1-E2)				

I/30494/2023

ANNEXURE-II

CEA Case No.: KNK-1031			Map Scale : 1 cm= 500 m		
Name of the Power line: 220 kV SC line on DC tower from Shirur 220/33 kV Pooling Substation of M/s Ayana Renewable Power Six Pvt. Ltd. to 400/220 kV Koppal (Tadakkal) SS			Total Length : 24 km		
			S.R. Value : 30,000 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/ARPSPL/2559 Date: 07.06.2021					
1.	Gadag (GDG) – Kanginhal (KGX)	Out of parallelism			
2.	Kanginhal (KGX) – Harlapur (RLP)	0.1	0.0001	9959	1
3.	Harlapur (RLP) – Sompur Road (SOQ)	9.3	0.0080	6750	54
4.	Sompur Road (SOQ) – Banni Koppa (BNA)	8.5	0.0045	5556	25
5.	Banni Koppa (BNA) – Talakal (TLKL)	4.1	0.0033	10909	36
6.	Talakal (TLKL) – Bhanapur (BNP)	1.8	0.0014	12143	17
7.	Bhanapur (BNP) – Koppal (KBL)	Out of parallelism			
8.	Talakal (TLKL) – Kukanoor (KANR)				

Signals 7

KNK-1031

General Staff Branch

Integrated HQ of MoD, (Army)

DHQ PO, New Delhi - 110011


B/46937/Sigs 7(b)/3353

07 Jul 2023

Ayana Renewable Power Six Private Limited
Regd. & Corporate office: S2904, 29th Floor,
World Trade Center, Brigade Gateway Campus
#26/1, Dr. Rajkumar Road, Malleswaram-Rajajinagar
Baṅgalore-560055

**PTCC PROPOSAL FOR 220KV SINGLE CIRCUIT TRANSMISSION LINE ON
DOUBLE CIRCUIT TOWERS TADAKAL, HARALAPURA LINE WITH AL-59
CONDUCTOR**

1. Refer your letter No AYANA/KAR/220KV TL/PTCC/New Delhi/013 dt 21 Apr 2023 (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.


(SP Choyal)
Lt Col
GSO 1 (Comn)
for 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

Central Electricity Authority
PCD Division
Diary No. 336
Date 26/7/23

Sh. Anishay, DD
27/7

PPU. 31/7/23
31/07
Sh. Prateek