

I/34578/2024



सत्यमेव जयते

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. : RAJ-722		
Induced Voltage (IV) calculation for PTCC proposal of 400 KV S/C Transmission Line from 33/400 kV Generating PSS of Ayana Renewable Power Three Pvt. Ltd. Kanasar to 33/400 kV common pooling station of Ayana Renewable Power One & Three Pvt. Ltd, Jalalsar [Length-10.962 km]– Regd.		
SNo	Reference No.	Dated
I.	M/s Ayana Renewable Power Three Private Ltd: ARPPL/PTCC/2023/09	05.09.2023
II.	M/s Ayana Renewable Power Three Private Ltd: ARPTPL/PTCC/2024/01	28.02.2024
III.	M/s Ayana Renewable Power Three Private Ltd: e-Mail	14.03.2024
IV.	BSNL: DET/PTCC/ND/DV-10314/RAJ-1453/2023-24/	28.02.2024
V.	Northern Western Railway: SG/158/NWR/PTCC/932	05.10.2023

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

EPR zone for proposed S/S is mentioned below:

Name of the proposed Substation	Half diagonal distance, D/2 (mts)	Fault Current I (KA)	Resistance of Earth Mat, R (ohms)	d (mts) at 430 V	d (mts) at 650 V	d (mts) at 7kV	d (mts) at 10kV
400/33 kV Generating PSS Kanasar	140	50.4	0.279	4438	2889	141	57

As per the Telecom Details submitted by BSNL vide above reference (iv), no telephone exchange of BSNL is falling within the EPR zone of proposed Substations.

Telecommunication details from DG Signals, MoD are pending. However, vide above reference (ii), transmission utility has shown urgency for charging the line and has requested for provisional PTCC clearance.

In view of the above, it is requested that provisional PTCC route approval may be issued for the subject transmission line under intimation to this office.

Encl.: As above

Chief Engineer

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To,

1.	Divisional Engineer (PTCC), Northern Zone	BSNL, O/o PGM(North), QA & Inspection Circle D-Tax Building, Eastern Court, Janpath New Delhi-110001	
2.	GM (S&T)	North Western Railway Jaipur	
3.	Director General of Signals	General Staff Branch, Integrated HQ, MoD (army), Sena Bhawan, DHQ, PO, New Delhi- 110 105	With a request to provide details of Telecom assets/ NOC at the earliest for issuance of final RAC.
4.	Sr. Manager M/s Ayana Renewable Power Three Private Ltd	S2904, 29 th Floor WTC Brigade Gateway Campus Bangalore	Copy for information.

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ANNEXURE-I

CEA Case No.: RAJ-722			Map Scale : 1 cm= 500 m		
Name of the Power line: 400 KV S/C Transmission Line from 33/400 kV Generating PSS of Ayana Renewable Power Three Pvt. Ltd. Kansar to 33/400 kV common pooling station of Ayana Renewable Power One & Three Pvt. Ltd, Jalalsar.			Total Length : 10.962 km		
			S.R. Value : 5000 Ohm-cm		
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.
Northern Western Railway: SG/158/NWR/PTCC/932 Dated 05.10.2023					
<u>Affected Blocks & Telecom Circuits Details</u>					
1	Lalgarh R/s to Kansar R/s	Out of Parallelism			
2	Kansar R/s to Jamsar R/s	2.5	0.00054	40500	22
3	Jamsar R/s to Jagdeowala R/s	Out of Parallelism			