



भारत सरकार
Government of India
विद्युत मंत्रालय
Ministry of Power
केन्द्रीय विद्युत प्राधिकरण
Central Electricity Authority
पावर कम्युनिकेशन डवलपमेंट प्रभाग
Power Communication Development Division

No.:CEA/PCD/PTCC/RAJ-627/944-946

Date: 30.08.2019

DET (PTCC), Northern Zone,
Bharat Sanchar Nigam Ltd (BSNL),
O/o PGM(N), Inspection Circle,
CTS Compund, Netaji Nagar,
New Delhi – 110023

Subject: Induced Voltage Calculation in respect of PTCC proposal for 400 KV DCSS transmission line from 400KV switchyard of M/S Renew Solar power private ltd. to 765/400 KV PGCIL substation at Jalasar, Bikaner.

Reference: (i) BSNL letter no. DET/PTCC/ND/DV-9440/Raj-1215/2019-2020 dated 19.06.2019
(ii) North Western Railway letter no. SIG/158/NWR/PTCC/736 dated 10.05.2019

Sir,
The instant PTCC proposal has been examined. Low frequency induction on telecom cables of BSNL and Block & Telecom circuits of North Western Railway with respect to details furnished vide above reference has been computed. The Soil Resistivity (SR) value has been taken as 2,500 Ohm-cm. The voltages likely to be induced on paralleling telecom cables of BSNL and Block & Telecom circuits of North Western Railway under Single Line to Ground fault condition have been computed and are enclosed as Annex – I & II respectively. The screening factors, as applicable, have been considered. Telecommunication details from Defense are pending and the power authority has shown urgency for charging the line. In view of this, you are requested to issue provisional PTCC route approval.

Encl.: As above

शयनन्दु जगप सिंह
20.08.19.
(R. P. Singh)
Director, PTCC

Copy to:

1. Dy.CSTE (Tele), North Western Railway, Headquarter Office, Room No 136,First floor, Near Jawahar Circle, Jaipur – 302017 (Annexure –II only).
2. AGM, Power Evacuation, Renew Solar Power Pvt. Ltd.,138,Ansal Chambers II, Bikaji Cama Place,Delhi-110066.

Case No. : **RAJ-627**

Name of the Power Line: 400 KV DCSS Tx Line from 400 KV
Switchyard of M/s Renew Solar Power Pvt
Ltd. to 765/400 KV PGCIL S/S at Jalasar,
Bikaner

Annexure I

Toposheet Scale : 1cm=500mts
Total Length : 4.4801 Kms
S.R Value : 2500 Ohm-cm

Sl. No.	Name of Telecom Line	LOP in Kms	-MC in Ohms	Fault Current (Amps)	IV in Volts
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BSNL					
Reference No. DET/PTCC/ND/DV-9440/Raj-1215/2019-20					
Date : 19.06.2019					
BSNL Details					
1	Jamsher TE to NH-15(50 Pair) Copper Cable 2.0 KM	Out of Parallelism			
2	Jamsher TE to Police Thana Jamsher (10 Pair) Copper Cable 1.5 KM))			
3	Jamsher TE to SBBJ Bank, Jamsher (10 Pair) Copper Cable 1.0 KM))			
4	Jamsher TE to Jamsher (20 Pair) Copper Cable 2.5 KM))			

21/08/19
30.08.19
राघवेंद्र प्रताप सिंह
RAGHUVENDRA PRATAP SINGH
निदेशक / Director
केन्द्रीय विद्युत प्राधिकरण / C.E.A.
विद्युत मंत्रालय / Ministry of Power
भारत सरकार / Govt. of India
नई दिल्ली / New Delhi-65

ANNEXURE - II

Case No.: RAJ-627					
Name of the Power line: 400 KV DCSS transmission line from 400KV switchyard of M/S Renew Solar power private ltd. to 765/400 KV PGCIL substation at Jalasar, Bikaner		Map Scale : 1cm=500mts Total Length : 4.480 Km Soil Resistivity : 2500 Ohm-cm			
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.

North Western Railway letter no.-SG/158/NWR/PTCC/736 dated 10/05/2019					
1	Jagdeowala to Jamsar	Outside IV Zone			0
2	Jamsar to Kanasar	0.55	0.0004	15000	6

21/08/19
 20.08.19.
 राघवेंद्र प्रताप सिंह
 RAGHVENDRA PRATAP SINGH
 निदेशक / Director
 केन्द्रीय विद्युत प्राधिकरण / C.E.A.
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