

## भारत सरकार

Government of India विद्युत मंत्रालय Ministry of Power केन्द्रीय विद्युत प्राधिकरण Central Electricity Authority पावर कम्युनिकेशन डवलप्पेंट 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

মাদ্রালু পুনাদ দিছ ১৯.১৪ - ۱৭ (R. P. Singh) Director, PTCC

MIC

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,

Annexure I

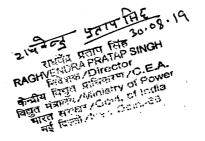
Toposheet Scale : 1cm=500mts

Total Length

: 4.4801 Kms Ohm-cm

S.R Value : 2500

	Bikaner	,			r
Sl. No.	Name of Telecom Line	LOP in Kms	•MC in Ohms	Fault Current (Amps)	IV in Volts
BSNL					
	e No. DET/PTCC/ND/DV-9440/Raj-1215/2019-20 9.06.2019				
	BSNL Details		-		
1	Jamsher TE to NH-15( 50 Pair) Copper Cable 2.0 KM	Out of Parallel	ism		
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	3)			
4	Jamsher TE to Jamsher ( 20 Pair) Copper Cable 2.5 KM	1)			



ANNEXURE - II

Name of the Power line:400 KV DCSS transmission line from 400KV switchyard of M/S Renew Solar power private ltd. to 765/400

**Map Scale** 

in Km.

: 1cm=500mts

Total Length: 4.480 Km

Soil Resistivity: 2500 Ohm-cm

**Effective** I.V

S.No.

KV PGCIL substation at Jalasar, Bikaner

Case No.: RAJ-627

Length of Parallelism Telecom. Details

Mutual Coupling in Ohms.

Fault current in Amps.

in Volts.

	North Western Railway letter noSG/158/NWR/PTCC/736 dated 10/05/2019							
1	Jagdeowala to Jamsar	O	utside IV Zon	e	0			
2	Jamsar to Kanasar	0.55	0.0004	15000	6			

