

I/32008/2023



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. : MRA-1223		
Induced Voltage (IV) calculation for PTCC proposal of 220 kV S/C Transmission Line from existing 220/132 kV Phaltan MIDC S/s to proposed 220/33 kV Solar Plant at Manjarwadi S/s.[Length-19.413 km] -Regd.		
S. No	Reference No.	Dated
(i)	TSWPD: TSWPD/MSETCL/2023-24/115	20.07.2023
(ii)	TSWPD: e-Mail	09.09.2023
(iii)	BSNL: IC/MBI/PTCC/MRA-2592/03	02.11.2023
(iv)	Central Railway: N.153/PTCC/220kV/MAH-843	31.10.2023
(v)	Defense: B/46937/Sigs 7(b)/3471	25.09.2023

The PTCC proposal submitted vide reference (i) & (ii) has been examined. The LF induction on Block & Telecom details of BSNL and Central Railway with respect to details furnished vide above reference (iii) & (iv) respectively has been computed. The voltage likely to be induced on paralleling Block & Telecom details of BSNL and Central Railway under Single Line to Ground fault condition are enclosed at Annexure-I & Annexure-II respectively. The screening factors as applicable have been considered. Director General of Signals, MoD has issued NOC vide above reference (v).

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
220 kV Manjarwadi S/s	82.04	18.228	0.243	763	477	NA	NA

As per the details provided by BSNL vide above reference (iii), there are no Telephone Exchanges lying in the EPR Zone.

Taking above into consideration, necessary action regarding issuance of PTCC route approval may be taken under intimation to this office.

Encl.: As above

Signed by Len.j.b
Date: 01-12-2023 15:26:12
Reason: Approved

Director

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To,

1.	Divisional Engineer (PTCC), Western Zone	QA & Inspection circle, 1 st floor, D- wing, BSNL Admin Bldg., Junu Tara Road, Santacruz (West), Mumbai-400054	
2.	GM (S&T) Central Railways	O/o Principal Chief Signal & Telecom Engineer 3 rd Floor, CSMT Building, Mumbai	
3.	TS Wind Power Developer	TS Wind Power Developer Office-201, Orchard Building, Nachiket Park Pune	Copy for information

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ANNEXURE-I

CEA Case No.: MRA-1223 Name of the Power line: 220 kV S/C Transmission Line from existing 220/132 kV Phaltan MIDC S/s to proposed 220/33 kV Solar Plant at Manjarwadi S/s.			Map Scale : 1 cm= 500 m Total Length : 19.413 km S.R. Value : 50000 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: IC/MBI/PTCC/MRA-2592/03 Date: 02.11.2023					
<u>Affected Blocks & Telecom Circuits Details</u>					
(A)	<u>Telephone Exchange Cables</u>				
1	Nimbhore to Surwadi	Out of Parallelism			

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CEA Case No.: MRA-1223			Map Scale : 1 cm= 500 m		
Name of the Power line: 220 kV S/C Transmission Line from existing 220/132 kV Phaltan MIDC S/s to proposed 220/33 kV Solar Plant at Manjarwadi S/s.			Total Length : 19.413 km		
			S.R. Value : 50000 Ohm-cm		
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.
Central Railway Letter No: N.153/PTCC/220kV/MAH-843Date: 31.10.2023					
<u>Affected Blocks & Telecom Circuits Details</u>					
(A)	<u>Telephone Exchange Cables</u>				
1	Taradgaon R/s to Surwadi R/s	4.2	0.00758	216356	164
2	Surwadi R/s to Phaltan R/s	Out of Parallelism			