

I/31481/2023



सत्यमेव जयते



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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. : GUJ-852		
Induced Voltage (IV) calculation for PTCC proposal of 220 kV D/C transmission line from 400/220 kV Kalawad S/s (GETCO) to 220/33 kV Nani Bhalsan PSS of M/s Morjar Renewable Pvt. Ltd. (23.18 km)		
S. No	Reference No.	Dated
(i)	MRPL/2022-23/Hybrid/220kV line/PTCC/012	17.04.2023
(ii)	BSNL: IC/MBI/PTCC/WGJ-130820235166-020620234977-010920224216-090820235178-190920235180-190920235179-130820235165-010920235208-130820235167-190920235290	19.09.2023
(iii)	Western Railway: SG.158/28/12/1321	19.05.2023
(iv)	Defense: B/46937/Sigs 7(b)/3358	26.07.2023

The PTCC proposal submitted vide reference (i) has been examined. The LF induction on communication circuits of BSNL and Western Railway with respect to details furnished vide above reference (ii) and (iii) respectively have been computed. The voltage likely to be induced on paralleling communication circuits of BSNL and Western Railway under Single Line to Ground fault condition are enclosed at Annexure-I and Annexure-II respectively. The screening factors as applicable have been considered.

DG Signals, MoD, vide above reference (iv) has issued their No Objection certificate (NOC) for charging of the line.

EPR zone for the proposed substation 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
220/33 kV Nani Bhalsan PSS of M/s MRPL	103.9	24	0.3	1636	1047	3	NA

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 regarding issuance of PTCC approval for the subject cited transmission line may be taken under intimation to this office.

Encl.: As above

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)	Western Railway, Office of PCSTE, S&T Dept., 5 th Floor, Station Building, Churchgate, Mumbai – 400 020	
3.	M/s Morjar Renewable Pvt Ltd	402 & 404, Delphy, C-wing, Hirachandani Business Park, Orchade Avenue, Powai, Mumbai – 400 076	Copy for information

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ANNEXURE-I

CEA Case No.: GUJ-852 Name of the Power line: 220 kV D/C transmission line from 400/220 kV Kalawad S/s (GETCO) to 220/33 kV Nani Bhalsan PSS of M/s Morjar Renewable Pvt. Ltd.			Map Scale : 1 cm= 500 m Total Length : 23.18 km S.R. Value : 10000 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: IC/MBI/PTCC/WGJ-130820235166-020620234977-010920224216-090820235178-190920235180-190920235179-130820235165-010920235208-130820235167-190920235290 Dated: 19.09.2023					
1	Khandhera Mobile Tower BTS	IV calculation not required			
2	Laloi Mobile Tower BTS				
3	Dhutaropar Mobile Tower BTS				

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ANNEXURE-II

CEA Case No.: GUJ-852 Name of the Power line: 220 kV D/C transmission line from 400/220 kV Kalawad S/s (GETCO) to 220/33 kV Nani Bhalsan PSS of M/s Morjar Renewable Pvt. Ltd.			Map Scale : 1 cm= 500 m Total Length : 23.18 km S.R. Value : 10000 Ohm-cm		
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.
Western Railway: SG.158/28/12/1321 Dated: 19.05.2023					
1	Jaliya Devani to Jamwanthali				Out of IV consideration zone
2	Jamwanthali to Alijya Vada				Out of IV consideration zone