

I/27184/2023



सत्यमेव जयते

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-832		
PTCC approval for 220 kV S/C line (partly on M/C and D/C towers) from 115 MW 220/33 kV M/s Torrent Power Limited Switchyard to Jam Khambaliya 400/220 kV PS (GIS) JKTL (27.94 km) - Regd.		
Sl. No.	Reference No.	Dated
(i)	M/s Torrent Power Ltd: TSL/2021-22/SECI-V Project/PTCC/016	19.04.2022
(ii)	M/s Torrent Power Ltd.: TSL/2021-22/SECI-V Project/PTCC/040	20.07.2022
(iii)	M/s Torrent Power Ltd.: TPL/2022-23/SECI-V Project/PTCC/081	21.01.2023
(iv)	BSNL:IC/MBI/PTCC/WGJ170220234662_WGJ020320234744_WGJ280320234810	28.03.2023
(v)	Western Railway: SG.158/28/12 (1271)	16.02.2023
(vi)	Defense: B/46937/Sigs7(b)/2858	19.07.2022

The PTCC proposal submitted vide reference (i), (ii) and (iii) has been examined. The LF induction on Block and Telecom circuits of BSNL and Western Railway with respect to details furnished vide above reference (iv) & (v) respectively have been computed. The voltage likely to be induced on paralleling Block and Telecom 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 has issued No Objection Certificate (NOC) vide reference (vi).

EPR zone for 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
115 MW 220/33 kV TPL Switchyard	75.72	28	0.8258	3996	2618	174	99

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 115 MW 220/33 kV TPL Substation.

Taking above into consideration, necessary action regarding issuance of PTCC approval for the subject cited transmission line might be taken under intimation to this office.

Encl.: As above

Chief Engineer

I/27184/2023

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 OCSTE, S&T Dept., 5 th Floor, Station Building, Churchgate, Mumbai – 400 020	
3	General Manager	Torrent Power Ltd., SUGEN Mega Power Project, Village: Akhakhhol Taluka: Kamrej, Dist.: Surat, Gujarat – 394155	Copy for information.

I/27184/2023

ANNEXURE-I

CEA Case No.: GUJ-832			Map Scale : 1 cm= 500 m		
Name of the Power line: 220 kV S/C line (partly on M/C and D/C towers) from 115 MW 220/33 kV M/s Torrent Power Limited Switchyard to Jam Khambaliya 400/220 kV PS (GIS) JKTL (27.94 km)			Total Length : 27.94 km		
			S.R. Value : 1,00,000 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/WGJ170220234662_WGJ020320234744_WGJ280320234810 Dated 28.03.2023					
<u>Affected Blocks & Telecom Circuits Details</u>					
I	Khambhaliya Exchange				
1	Khambhaliya Exchange to Nagar Gate		IV less than 430 V		
2	Nagar Gate to GBG Highschool		Out of parallelsim		
3	GBG Highschool to Seva Sadan		Out of parallelsim		
4	Seva Sadan to Kanchanpur		Out of parallelsim		
5	Nagar Gate to Collector Residence		IV less than 430 V		
6	Khambhaliya Exchange to Bhanvad Patiya		Out of parallelsim		
7	Khambhaliya Exchange to Federal bank	0.5	0.00902	16458	148
8	Khambhaliya Exchange to Panchvati		IV less than 430 V		

I/27184/2023

ANNEXURE-II

CEA Case No.: GUJ-832					
Name of the Power line: 220 kV S/C line (partly on M/C and D/C towers) from 115 MW 220/33 kV M/s Torrent Power Limited Switchyard to Jam Khambaliya 400/220 kV PS (GIS) JKTL (27.94 km)			Map Scale : 1 cm= 500 m		
			Total Length : 27.94 km		
			S.R. Value : 1,00,000 Ohm-cm		

S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.
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Western Railway: SG.158/28/12 (1271) Dated 16.12.2022

Affected Blocks & Telecom Circuits Details

1	Bhopalika to Bhatel	4.7	0.00622	20384	127
2	Bhatel to Khambhaliya	12.5	0.025935	15616	405
3	Khambhaliya to Modpur	1.7	0.00469	15352	72