

I/33024/2024



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. : MRA-1215		
Induced Voltage (IV) calculation for PTCC proposal for LILO of both circuits of Parli (PG)- Pune (GIS) at 400 kV Kallam PS (16.901 km) - regd.		
S. No	Reference No.	Dated
(i)	KTL/Projects/Const./2022-23/47 (received on 18.01.2023)	31.10.2022
(ii)	CEA: I/26145/2023	07.02.2023
(iii)	KTL/Projects/Const./2022-23/122	22.05.2023
(iv)	KTL/Projects/Const./2023-24/228	04.01.2024
(v)	CEA E-mail	08.01.2024
(vi)	KTL/Projects/Const./2023-24/231	09.01.2024
(vii)	BSNL: IC/MBI/PTCC/MRA-2590/03	08.09.2023
(viii)	Central Railway: NIL (received via e-mail dated 06.01.2024 from KTL)	07.12.2023

The PTCC proposal submitted vide reference (i) and (iii) has been examined.

The LF induction on communication circuits of BSNL with respect to details furnished vide above reference (vii) have been computed. The voltage likely to be induced on paralleling communication circuits of BSNL under Single Line to Ground fault condition are enclosed at Annexure-I. The screening factors as applicable have been considered.

GM (S&T), Central railway vide reference (viii) has issued their 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
400/220 kv Kallam	214.7	43.2	0.336	7033	4580	231	97

As per the details submitted by BSNL vide reference (vii) above, no telephone exchanges are falling in the EPR zone of the proposed substation.

Telecommunication details from DG Signals, MoD are awaited however, vide reference (iv) and (vi) above, M/s KTL have informed that all construction related work of the transmission line has completed and the line is awaiting charging due to want of PTCC approval. So as to charge the subject cited transmission line as per schedule, M/s KTL has requested for issuance of provisional PTCC clearance.

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Taking above into consideration, necessary action for issuance of provisional PTCC route approval may be taken under intimation to this office. LF induction on telecommunication circuits of Defense, will be communicated after the receipt of details from DG Signals, MoD.

Encl.: As above

Director

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.	Director General of Signals	General Staff Branch, Integrated HQ, MoD (army), Sena Bhawan, DHQ, PO, New Delhi- 110 105	With a request to provide details of Telecom assets/ NOC at the earliest for IV calculation and issuance of final RAC.
3.	M/s Kallam Transmission Limited	Kallam Transmission Limited, 3748, Prabhavati Nagar, Near Gurukripa Electronics, Washi, Osmanabad – 413 503	Copy for information

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ANNEXURE-I

CEA Case No.: MRA-1215 Name of the Power line: LILO of both circuits of Parli (PG)- Pune (GIS) at 400 kV Kallam PS (16.901 km)			Map Scale : 1 cm= 500 m Total Length : 16.901 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: IC/MBI/PTCC/MRA-2590/03 Dated: 08.09.2023					
1	Itkur T/E to Itkur Village (A-B)		Out of parallelism		
2	Para T/E to Para village (X-W)		IV less than 430 V		

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मध्य रेल
Central Railway

प्रधान मुख्य सिगनल एवं दूर संचार इंजीनियर का कार्यालय
Principal Chief Signal & Telecom Engineer's office
तीसरा माला, एनेक्स विल्डिंग,
3rd Floor, Annex Building
छत्रपती शिवाजी महाराज टर्मिनस, मुंबई-01
Chhatrapati Shivaji Maharaja Terminus, Mumbai-01

Date: 07-12-2023


To,
The Director (PTCC),
Central Electricity Authority,
NRPC Complex,
Power Communication Development Division,
18A, Saheed Jeet Singh Marg,
Katwarai Sarai,
New Delhi-110 016.

Sub: PTCC proposal for construction of 400kV M/C Parli - Pune line.
Ref: 1. IndiGrid L No. KTL/Projects/Const/2022-23/47 dtd 24.11.2023.
2. Sr DSTE SUR Office L No. SUR/N/208/PTCC-Genl dtd 29.11.2023.

Based on letter and circuit detail received from Sr DSTE/SUR vide under reference (2) and proforma- II and route map submitted by IndiGrid vide their letter under reference (1), it is to state that there is no railway line exist within the vicinity of 08 kms from the proposed power line. Distance between the nearest railway station (Dhoki) and proposed power line is approx. 38 KMs.

As approved by competent Authority vide e-office file no. CR-HQ0SnT/23/2020-O/o DY CSTE/Tel/ SnT HQ/CR dated 06/12/23, This office hereby issues NOC subject to the condition that any adverse effect observed on Signal & Telecom Circuits of Central Railway after charging the proposed power line & substation, the power authority will bear the cost of damages to Central Railway assets.

Date : 07.12.2023


(Atul Kumar Gupta)
Dy CSTE (Tele/PRS) HQ
For GM (S&T)
Central Railway, CSMT Mumbai

Copy to: IndiGrid
A-52/6 G/F Extn Badarpur,
New Delhi - 110 044,

For information please