

I/34696/2024



सत्यमेव जयते

भारत सरकार
Government of India
विद्युत मंत्रालय
Ministry of Power
केन्द्रीय विद्युत प्राधिकरण
Central Electricity Authority
विद्युत प्रणाली संचार विकास प्रभाग
Power System Communication Development Division

CEA Case No. : KNK-1029		
Induced Voltage (IV) Calculation for 400 kV D/C Gadag – Kudgi (New Narendra) transmission line (Length: 93.491 km)		
S. No	Reference No.	Dated
(i)	GTL/TL-PTCC/2022-23/01	30.01.2023
(ii)	ReNew E-mail:	19.03.2024
(iii)	BSNL: SR-PTCC/SKT5431/02	27.12.2023
(iv)	South Western Railway: SG/SWR/PTCC/RENEW/2651	08.02.2024
(v)	Defense: B/46937/Sigs7(b)/3264	31.05.2023

The PTCC proposal submitted vide reference (i) and (ii) has been examined. The LF induction on communication circuits of BSNL and South Western Railway with respect to details furnished vide above references (iii) and (iv) respectively have been computed. The voltage likely to be induced on paralleling communication cables of BSNL and South 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 have issued No Objection Certificate (NOC) vide reference (v) (enclosed as Annexure-III).

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
400 kV Gadag Substation	116	47.88	0.11403	1357	858	NA	NA

As per the details submitted by BSNL vide reference (iii) above, no telephone exchange is falling in the EPR zone of the proposed substations.

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

This issues with the approval of Chief Engineer.

Encl.: As above

Deputy Director

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To,

1.	Divisional Engineer (PTCC)	O/o CGM, QA & Inspection circle, 2 nd Floor, Sanchar complex, WMS compound, Jayanagar, 5 th block, 9 th main, 47 th cross, Bengaluru- 560 041	
2.	Principal Chief Signal & Telecom Engineer	South Western Railway, Rail Soudha, Gadag road, Hubballi - 20	
3.	M/s Gadag Narendra Transmission Limited	H. No. 38, renuakadevi Nilaya, revanasiddeshwara Nagara, Gajendragada, Gadag – 582 114	Copy for information

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ANNEXURE-I

CEA Case No.: KNK-1029		Map Scale : 1 cm= 500 m			
Name of the Power line: 400 kV D/C Gadag – Kudgi (New Narendra) transmission line		Total Length : 93.491 km			
		S.R. Value : 25000 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 SR-PTCC/SKT5431/02 Date: 27.12.2023					
I	Muttagi Telephone Exchange				
1	Exchange to within NTPC premises (A-A1)	IV less than 430 V			
II	Telagi Telephone Exchange				
1	Exchange towards railway station (B-B1)	Out of Parallelism			
2	Exchange to within village (B-B2)				
III	Alamatti Telephone Exchange				
1	Exchange to Nidagundi (C-C1)	5.6	0.0292	20822	608
2	Exchange to Alamatti Quarters Area (C-C2)	IV less than 430 V			
IV	Kamatagi Telephone Exchange				
1	Exchange to within village (D-D1)	IV less than 430 V			
V	Hanumanal Telephone Exchange				
1	Exchange to Temple road (H-H1)	IV less than 430 V			
2	Exchange to Hanumasagar road (H-H2)				
3	Exchange to NH side (H-H3)				

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ANNEXURE-II

CEA Case No.: KNK-1029			Map Scale : 1 cm= 500 m		
Name of the Power line: 400 kV D/C Gadag – Kudgi (New Narendra) transmission line			Total Length : 93.491 km		
			S.R. Value : 25000 Ohm-cm		
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.
South Western Railway: SG/SWR/PTCC/RENEW/2651 Date: 08.02.2024					
1	JRKT to LMT	7.5	0.00406	18227	74
2	LMT to WDL	10.3	0.00657	21004	138
3	WDL to BSRX	2.5	0.00633	25119	159
4	BSRX to KDGI	2.6	0.00147	27891	41
5	KDGI to MVD	2.7	0.0011	29091	32

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Tele : 23019746

Directorate General of Signals
Signals 7
General Staff Branch
Integrated HQ of MoD, (Army)
DHQ PO, New Delhi – 110011


B/46937/Sigs 7(b)/3264/

31 May 2023

Project Manager-Transmission
Gadag Transmission Limited
House No. -38, Renukadevi Nilaya,
Reyanasiddeshwara nagara Gajendragada
Dist Gadag-582114

PTCC PROPOSAL FOR CONSTRUCTION OF 400KV DC GADAG-KUDGI (NEW NARENDRA) TRANSMISSION LINE

1. Refer your letter No GTL/TL-PTCC/2022-23/01 dt 30 Jan 2023 (copy att).
2. **No Objection Certificate (NOC) is accorded** based on inputs provided as per Map sheets received vide your letter mentioned above.
3. Documents alongwith map sheets (in original) are returned herewith for your further necessary action.


(SK Sharma)
Lt Col
GSO 1 (Comn)
for ADG T

Enclosures : As above**Copy to :-**

✓ The Director (PTCC), CEA
Power Communication Development Division
NRPC Complex, 18-A Shaheed Jeet Singh Marg
Katwaria Sarai, New Delhi – 110016

- for information

The DET(PTCC), Northern Zone
Bharat Sanchar Nigam Limited
O/o PGM (North), QA & Inspection Circle,
D-Tax Building, Eastern Court, Janpath
New Delhi-110001

Central Electricity Authority
PCD DivisionDiary No.....
Date: 14.06.2023

Dw (PCD)
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