

I/30317/2023



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-829		
Induced Voltage (IV) calculation in respect of PTCC proposal for LILO of 400 kV D/C KAPP – Vapi line at Vapi – II substation (0.94 km) - regd.		
S. No	Reference No.	Dated
(i)	M/s MUML (erstwhile M/s VNLTL): VNLTL/VAPI/PKG-B/2021-22/193	04.04.2022
(ii)	M/s MUML: Email	08.08.2023
(iii)	BSNL: IC/MBI/PTCC/WGJ290620222880-WGJ290620222881	04.07.2022
(iv)	Western Railway: SG. 158/28/12/1196(E-226530)	26.08.2022
(v)	Defense: B/46937/Sigs 7(b)/2851	11.07.2022

The PTCC proposal and details submitted vide reference (i) & (ii) has been examined. The LF induction on communication circuits of BSNL with respect to details furnished vide above reference (iii) has been computed. The voltages 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. Western Railway has issued No Objection Certificate (NOC) vide above reference (iv). Defense has issued No Objection Certificate (NOC) vide above reference (v) (copy enclosed as Annexure-II).

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
Vapi-II S/S	78.8	30	0.12	580.9	357.6	NIL	NIL

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 for issuance of PTCC route approval may be taken under intimation to this office.

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.	Chief Manager (Projects)	MUML, O-4, 4th floor, Saga Casa Building, Chala, Near Police Check Post, Daman Road, Vapi, Gujarat - 396191	Copy for information

I/30317/2023

ANNEXURE-I

CEA Case No.: GUJ-829		Map Scale : 1 cm= 500 m			
Name of the Power line: LILO of 400 kV D/C KAPP – Vapi line at Vapi – II substation		Total Length : 0.94 km			
		S.R. Value : 2500 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/WGJ290620222880-WGJ290620222881 Date: 04.07.2022					
BSNL TE Cable Details					
I	PARIA TELEPHONE EXCHANGE				
A	Paria Exchange to Daswada (A)				
a	Jalaram Nasta house - 400 pair U/G cable, distance = 1 KM (A-1)				
b	Jalaram Nasta house to Daswada - 100 pair U/G cable, distance = 2 KM (A-2)				
c	Jalaram Nasta house to Cora plast industries ltd - 50 pair U/G cable, distance = 1.5 KM (A-3)				
B	Paria Exchange to Khunte Tin Rasta pillar - 200 pair U/G cable, distance = 3 KM (A-4)				
a	Khunte pillar to Rohina - 100 pair U/G cable, distance = 1.5 KM (A-5)				
b	Khunte pillar to Dulav village - 50 pair U/G cable, distance = 1.5 KM (A-6)				
C	Paria exchange to Desai faliya - 100 pair U/G cable, distance = 1.7 KM (A-7)				
D	Paria exchange to Langiya faliya - 100 pair U/G cable, distance = 1.0 KM (A-8)				
a	Langiya faliya village - 50 pair U/G cable, distance = 2.0 KM (A-9)				

IV less than 430 V

I/30317/2023

b	Towards Pidilite Industries - 50 pair U/G cable, distance = 1.0 KM (A-10)
E	Paria exchange to Ambacha Road - 50 pair U/G cable, distance = 3.0 KM (A-11)
II	KHERLAV EXCHANGE B
A	Kherlav exchange to Dumlao road - 50 pair U/G cable, distance = 2.0 KM (B-1)
B	Kherlav exchange to Bordi Faliya - 20 pair Overhead cable, distance = 1.5 KM (B-2)
III	GOIMA EXCHANGE C
A	Goima exchange to Rohina - 100 pair U/G cable, distance = 2.0 KM (C-1)
B	Goima exchange to Anaval road - 100 pair U/G cable, distance = 2.0 KM (C-2)
C	Goima exchange to Kherlav - 50 pair U/G cable, distance = 1.5 KM (C-3)
D	Goima exchange to Ashma road - 100 pair U/G cable, distance = 2.0 KM (C-4)
V	WAGCHHIPA EXCHANGE (BTS) D
A	Waghchhipa exchange to Cabinet 800Pr - 1 nos, 200 Pr - nos, 100Pr-1 nos, diatance = 1.0km (D-1)
a)	Waghchhipa cabinet to Gram Panchayet Piller Cabinet 200 Pr - nos, Diatance = 1.4km (D-2)
b)	Gram Panchayet Piller to shkari Bank 20pr - 1nos , Distance=1.0km. (D-3)
c)	Gram Panchayet Piller Sahkari Bank 20 Pr - 1nos , Distance=1.0km. (D-4)
d)	Gram Panchayet Piller to Parvasa Road 50pr - 1nos, 20 Pr - 1nos , Distance=1.0km. (D-5)
B	Wachchhipa exchange to Chitrardi Pillar 200Pr - 1nos, Distance= 2.2 km (D-6)

IV less than 430 V

I/30317/2023

a)	Chitrapardi pillar to Sukesh 100Pr - 1nos, Distance =2.0km (D-7)
	Chitrapardi pillar to Sukesh Khuradia falia 100Pr - 1nos, Distance =2.0km (D-8)
IV	NEVRI BTS E
A	Ambach Exchange F
a	Ambach exchange to Goverment school - 200 pair U/G cable, distance = 1.5 KM (F-1)
b	Ambach exchange to Chiri - 100 pair U/G cable, distance = 1.0 KM (F-2)
c	Ambach exchange to Paria road - 100 pair U/G cable, distance = 2.0 KM (F-3)
I	Motaponda Exchange (BTS) V
a	Mota Ponda exchange to Chanda chowk - 200 pair U/G cable, distance = 1.5 KM (V-1)
b	Mota Ponda exchange to Main Road - 200 pair U/G cable, distance = 0.5 KM (V-2)
c	Main Road to Canal - 250 pair U/G cable , distance = 4Km (V-3)
d	Main Road to Dharampur Road - 50Pair U/G cable , distance = 3.5 Km (V-4)
e	Jhanda chowk to Talav (Ambethi Road) - 250 pair , diatence = 0.8 Kms (V-5)

IV less than 430 V

/30317/2023 Tele : 23019746

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

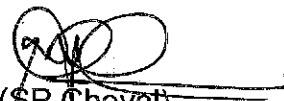
B/46937/Sigs 7(b)/2851/

11 Jul 2022

Chief Manager-Projects
Vapi-II North Lakhimpur Transmission Limited
Regd. Office: F-1, The Mira Corporate Suites
1&2, Ishwar Nagar, Mathura Road
New Delhi-110065

**SUBMISSION OF REVISED PTCC PROPOSAL FOR INSTALLATION OF LILO OF
KAPP-VAPI 400KV D/C LINE AT VAPI II UNDER VAPI II-NORTH LAKHIMPUR
TRANSMISSION LTD**

1. Refer your letter No VNLT/L/VAPI/PKG-B/2021-22/193 dt 04 Apr 2022 (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.


(SP Choyal)
Lt Col
GSO 1 (Coord)
for SO-in-C

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
O/o PGM (North), QA & Inspection Circle,
D-Tax Building, Eastern Court, Janpath
New Delhi-110001

