



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



No. CEA/PCD/PTCC/MRA-1155/517-18

Date: 11.09.2020

Subject: Induced Voltage calculation in respect of PTCC proposal for 220 kV D/C Line from LILO point (L.No. 77) of existing 220 kV Karad – KDPH line to LILO point (L.No. 130) of 220 kV Karad – Pedambe line (for existing 220 kV Dhajgaon Wind Farm S/s), length = 2.03 kms.

Ref: (i) MSETCL letter no. MSETCL/CO/PS/S-I/PTCC/B-564/01443 dated 15.02.2019
(ii) BSNL letter no. IC/MBI/PTCC/MRA-2411/05 dated 18.03.2019
(iii) Central Railway letter no. N.153/PTCC/220kV/MAH-725 RC dated 12.07.2020
(iv) Defense letter no. B/46937/Sigs 7(b)/1492 dated 02.04.2019

MSETCL submitted the subject proposal vide above cited reference (i). The low frequency induction on BSNL circuits as per details furnished vide above cited reference (ii) has been examined. The Soil Resistivity value has been taken as 15,000 Ohms-cm, as per data submitted by Power Authority. Voltages likely to be induced on paralleling BSNL Telecom Cables under single line to ground fault condition are enclosed at Annex-I. The screening factors as applicable have been considered. Central Railway and Defense have accorded NOC vide above reference (iii) and (iv) respectively for the above line (Copies enclosed at Annexure – II and Annexure – III respectively).

Taking above into consideration, take necessary action regarding issue of PTCC route approval.

Enclosures.: As above.

Upendra Kumar
11.09.2020

(Upendra Kumar)
Chief Engineer

To,
Divisional Engineer (PTCC), Inspection Circle,
Bharat Sanchar Nigam Limited (BSNL),
3rd Floor, D-Wing, BSNL Admin Building
Juhu Tara Road, Santacruz (West), Mumbai-400054

MIC

Copy to:

1. Chief Engineer(Project Schemes), MSETCL, Plot No. C-19, E-Block, Prakashganga, Bandra-Kurla Complex, Bandra (East), Mumbai – 400051.

CEA office case No. - 1155
 T(PTCC) office case No. - MRA-2411
 Railway office case no. - 2411
 Name of the power line - Existing 220 kVA KDPH - Karad Tr. line from Existing LIL on 220 kV Karad - Pedhambhe from 220/33 KV Palashi S/S

Map scale - 1C = 500 meter
 Route length - 2.03 km.
 Soil resistivity - 15,000 Ω -cm

Sl. No.	Name of the Telecom line / cable	Length of Parallelism in Kms.	Mutual Coupling in Ohms	Fault Current in Amps	Induced Voltage in Volts
A] Marali Exchg.					
1	1) Exch. to Ambrule 100 pr 7.0 km				} < 430V OUT OF PARALLELISM
2	2) Exch. to Sonevade 20 pr 4 km				
3	3) Exch. to Shindewadi 50 pr 6 km				
4	4) Exch. to Dhudadewadi 20 pr 2.5 km				
B] Navarasta Exchg					
5	1) Exch. towards Malharpeth 100 pr 2 km				} OUT OF PARALLELISM
6	2) Exch. towards Marali 50 pr 2 km				
7	3) Exch. towards Patan 100 pr 3 km				
C] Patan Exchg.					
8	1) Exchg. towards Adul 100 pr 3 km				} OUT OF PARALLELISM
9	2) Exch. towards Leayana 100 pr 3.5 km				
D] Peth. Shivapur Exchg.					
10	1) Exchg. towards Patan 100 pr 2.5 km				} < 430V
11	2) Exchg. towards Kusrud 50 pr 5.5 km				
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					

(Signature)

फाराज़ / FARAZ
 उप निदेशक / Deputy Director
 केन्द्रीय विद्युत प्राधिकरण / C.E.A.
 विद्युत मंत्रालय / Min. of Power
 भारत सरकार / Govt. of India
 नई दिल्ली / New Delhi-66



CENTRAL RAILWAY

MRA-1155

Annex - II

Headquarters Office
S&T Branch,
3rd Floor, Annex Bldg,
Mumbai CSMT.

No:- N.153/PTCC/220kV/MAH-725

Date: 26th February 2019

DET (PTCC),
3rd Floor, "D" Wing,
Admin Bldg., BSNL Complex
Santacruz(W),
Mumbai - 400 054.

Sub: PTCC proposal for 220kV DC line, from LILO point (L.No. 77) of existing 220kV Karad - KDPH line to LILO point (L.No.130) of 220kV Karad - Pedambhe line (for existing 220kV Dhajgaon Wind Farm SS).

Ref: MSETCL Office L. No. MSETCL/CO/PS/S-I/PTCC/B-564/01443 dated 15.02.2019.

Based on the route map & Performa -II the proposed power line is 35km from the nearest existing railway station Karad.

Hence, 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.

(Vijay S Mohad)
ESTE / Network / HQ
For GM (S&T)
Central Railway, CST Mumbai

Copy to: Chief Engineer (Projects Schemes),
MSETCL, Prakashganga,
Plot No. C-19, 'E' Block, BKC,
Bandra (East),
Mumbai - 400 051.

Annex - III

MRA - 1155

File : 23019746

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

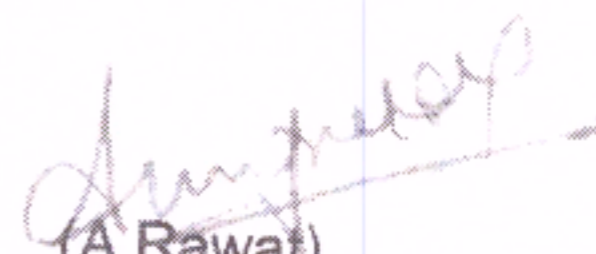
B/46937/Sigs 7(b)/1492/

02 Apr 2019

Office of the Chief Engineer,
Projects Schemes Department
Maharashtra State Electricity Transmission Co. Ltd
"Prakashganga", Plot No C-19, 'E' Block,
Bandra - Kurla Complex, Bandra (East),
Mumbai-400051

**PTCC PROPOSAL FOR 220KV DC LINE, FROM LILO POINT (L.NO. 77) OF EXISTING 220KV
KARAD-KDPH LINE TO LILO POINT (L.NO. 130) OF 220KV KARAD-PEDAMBHE LINE (FO
EXISTING 220KV DHAJGAON WIND FARM S/S), LENGTH=2.03KMS**

1. Ref your letter No MSETCL/CO/PS/S-I/PTCC/B-564/No 01443 dt 15 Feb 2019 (copy att).
2. No Objection Certificate (NOC) is accorded based on inputs provided vide Map sheet received under your letter mentioned above.
3. Documents alongwith map sheets (in original) are forwarded herewith for your further action.


(A Rawat)
Maj
GSO 1 (Comn)
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.

Sh Reddy

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8/4

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8/4/2019