

I/31480/2023



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

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ONE EARTH - ONE FAMILY - ONE FUTURE

CEA Case No. : MRA-1213		
Induced Voltage (IV) Calculation in respect of PTCC proposal for 220 kV D/C UG cable between AEML 220 kV Chembur S/s to proposed AEML 220 kV BKC S/s (10.5 km) - regd.		
S. No	Reference No.	Dated
(i)	M/s Adani Electricity Mumbai Ltd: AEML/TCC/Chembur BKC/22-23/050	07.12.2022
(ii)	M/s Adani Electricity Mumbai Ltd: Email	01.11.2023
(iii)	BSNL: IC/MBI/PTCC/MRA-2577/03	09.08.2023
(iv)	Central Railway: N.153/PTCC/220kV/MAH-827	21.02.2023
(v)	Defense: B/46937/Sigs 7(b)/3180	23.03.2023

The PTCC proposal and details submitted vide references (i) have been examined. Vide reference (iii) above, BSNL has forwarded telecom details from MTNL. The LF induction on communication circuits of MTNL and Central Railway with respect to details furnished vide above reference (iii) and (iv) respectively has been computed. The voltages likely to be induced on paralleling communication circuits of MTNL and Central Railway under Single Line to Ground fault condition are enclosed at Annexure-I & II respectively. The screening factors as applicable have been considered. DG Signals, MoD have issued No Objection Certificate (NOC) vide above reference (v) (copy enclosed as Annexure-III).

EPR details for the proposed substation(s) are as follows:

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
220 kV BKC S/s	23.64	35	0.029	32.16	13.27	NIL	NIL

As per the details submitted by BSNL, no telecom exchanges are falling within 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

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To,

1.	Divisional Engineer (PTCC), Western Zone	QA & Inspection circle, 1 <sup>st</sup> floor, D- wing, BSNL Admin Bldg., Junu Tara Road, Santacruz (West), Mumbai-400054	
2.	GM (S&T)	Central Railway, O/o PCSTE, S&T Dept., 3 <sup>rd</sup> Floor, Annexe Building, Chhatrapati Shivaji Maharaj Terminus, Mumbai – 400001	
3.	Sr. Manager	Adani Electricity Mumbai Ltd, CTS 407/A (New), 408 Old Village, Eksar Devidas Lane, Off SVP Road, Borivali (W), Mumbai - 400103	For kind information

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ANNEXURE-I

CEA Case No.: MRA-1213		Map Scale : 1 cm= 500 m			
Name of the Power line: 220 kV D/C UG cable between AEML 220 kV Chembur S/s to proposed AEML 220 kV BKC S/s		Total Length : 10.5 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.
<b>MTNL TD vide BSNL Letter No: IC/MBI/PTCC/MRA-2577/03 Date: 09.08.2023</b>					
	Z-2				
	AM (SION/WDL)				
	SION	IV less than 430 V			
	WADALA TT				
	MATUNGA				
	AM (PBD/WRL)				
	MAHIM	IV less than 430 V			
	AM (MKD-CHM)				
	MANKHURD	IV less than 430 V			
	ASHISH RSU				
	CHBT RSU				
	ASNR RSU				
	UNPK RSU				
	CHEMBUR				
	PLL RSU				
	AM (GKP-PWI)				
	HINGWALA RSU	IV less than 430 V			
	GARODIA NAGAR RSU				
	GKP Exch,				

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Deep Plaza RDLU, KRL

		IV less than 430 V			
	NNGR				
	Z-3				
	AM (BANDRA)				
	BKC	IV less than 430 V			
	MMRDA				
	EPF				
	DTTC				
	KHR				
	UHU DANDA				
	AM(MRL/SKV)				
	MAROL	IV less than 430 V			
	SEEPZ RSU				
	Sakivihar				
	Maroshi				
	DARPAN				
	Seepz				
	ATC RSU				
	Technopolis				
	SAKINAKA				

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ANNEXURE-II

CEA Case No.: MRA-1213		Map Scale : 1 cm= 500 m			
Name of the Power line: 220 kV D/C UG cable between AEML 220 kV Chembur S/s to proposed AEML 220 kV BKC S/s		Total Length : 10.5 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.
<b>CENTRAL RAILWAY Letter No: N.153/PTCC/220kV/MAH-827. Date: 21.02.2023</b>					
<b>Affected Block &amp; telecom circuits</b>					
1.	Matunga - Sion	Out of parallelism			0
2.	Sion - Kurla	3.5	0.0007	25714	18
3.	Kurla - Vidyavihar	2.6	0.0009	17778	16
4.	Vidyavihar - Ghatkopar	0.3	0.0001	20951	2
5.	Ghatkopar – Vikhroli	0.2	0.00005	25528	1
6.	Wadala – Guru Teg Bahadur Nagar	Out of parallelism			0
7.	Guru Teg Bahadur Nagar - Chunabhati	IV approximately zero			0
8.	Chunabhati - Kurla	3.5	0.0007	21429	15
9.	Kurla – Tilak Nagar	1.5	0.0015	17333	26
10.	Tilak Nagar - Chembur	0.7	0.0006	19667	12
11.	Chembur - Govandi	1.0	0.0005	16267	8
12.	Govandi - Mankhurd	1.5	0.00046	34783	16
13.	Mankhurd – Vashi	Out of parallelism			0
14.	Kurla - Trombay	4.7	0.00306	17320	53

I/31480/2023 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)/3180/

23 Mar 2023

Sr. Manager  
Adani Electricity Mumbai Ltd  
CTS 407/A (New), 408 Old Village  
Eksar Devidas Lane, Off SVP Road  
Borivali (W), Mumbai 400103,  
Maharashtra, India

**PTCC PROPOSAL FOR INTERCONNECTION OF 220KV EHV CABLES  
BETWEEN ADANI ELECTRICITY MUMBAI LIMITED (AEML) 220KV CHEMBUR  
EHV SUBSTATION TO AEML PROPOSED 220KV BKC EHV SUBSTATION**

1. Refer your letter No AEML/TCC/Chembur BKC/22-23/050 dt 07 Dec 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.

  
(SK Sharma)  
Lt Col  
GSO 1 (Comn)  
for Offg 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 Division

Diary No. 307

Date 03.04.2023

AD-PP4  
V2  
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