



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**

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<b>CEA Case No. : MRA-1222</b>		
<b>Induced Voltage (IV) calculation for PTCC proposal of 400kV D/C Padghe(PG)- Kharghar line [Length – 69.952 km] – Regd.</b>		
<b>S. No</b>	<b>Reference No.</b>	<b>Dated</b>
(i)	MUML: MUML/PTCC/2023-2024/550	19.06.2023
(ii)	Email: Sterlite Power Transmission Ltd	21.05.2024
(iii)	BSNL: IC/MBI/PTCC/MRA-2614/04	04.04.2024
(iv)	Central Railway: N.153/PTCC/400kV/MAH-840	14.03.2024
(v)	Defense: B/46937/Sigs7(b)/3427	05.09.2023

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

As all sub stations are existing so EPR calculation is not required. In view of the above, it is requested that PTCC route approval may be issued for the subject transmission line under intimation to this office.

Encl.: As above

**Chief Engineer**

**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 Pr. Chief S&T Engineer Central Railway Mumbai	
3.	Project Head	DLF Cyber Park, Tower-B, 9 <sup>th</sup> Floor, Udyog Vihar Phase-III, Secotr-20, Gurugrm-122008	Copy for Information

**ANNEXURE-I**

S.No.		Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.				
CEA Case No.: MRA-1222			Map Scale : 1 cm= 500 m							
Name of the Power line: 400kV D/C Padghe(PG)- Kharghar line			Total Length: 69.952 km							
			S.R. Value : 50000 Ohm-cm							
BSNL Letter No: IC/MBI/PTCC/MRA-2614/04 Dated 04.04.2024										
<b>AM (VASHI)</b>										
1	SANPADA		IV less than 430V							
2	VASHI RLY STN									
3	<b>TURBHE</b>		IV less than 430V							
3.1	TURBHE_1(line 1)									
3.2	TURBHE_2(line 2)									
3.3	TURBHE_3(line 3)						2.716	0.0197	32291	636
3.4	TURBHE_4(line 4)		2.716	0.0123	32291	397				
4	EL ZONE.RSU		IV less than 430V							
5	Rabale									
6	MBP									
7	APMC		1.129	0.0082	32291	265				
8	KKR		IV less than 430V							
9	VSI Sec 7									
10	VASHI									
11	AIROLI									
<b>AM (BELAPUR)</b>										
12	SUKHKARTA		Out of Parallelism							
13	Parsik-Hill RSU									
14	Vanshree RSU									
15	CBD BELAPUR									
16	Old Panvel									
17	New Panvel									
18	NERUL		Out of Parallelism							
19	Kalamboli		0.638	0.002	31385	63				
20	Taloja		2.559	0.0076	30331	230				
21	Kamothe		IV less than 430V							
22	<b>KHARGHAR</b>		Out of Parallelism							
22.1	KHARGHAR_1(line 1)									
22.2	KHARGHAR_2(line 2)									
22.3	KHARGHAR_3(line 3)						0.311	0.0155	34807	540
22.4	KHARGHAR_4(line 4)						0.868	0.0164	32969	541

23	GST RSU	IV less than 430V
<b>AM (CHAARAI)</b>		
24	KAUSA	IV less than 430V
25	Riverwood	



**ANNEXURE-II**

CEA Case No.: MRA-1222 Name of the Power line: 400kV D/C Padghe(PG)- Kharghar line			Map Scale : 1 cm= 500 m Total Length: 69.952 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.
Central Railway Letter No: N.153/PTCC/400kV/MAH-840			Dated 14.03.2024		
1	ASO-VSD	0.534	0.00034	1357	0.46
2	VSD-KDV	2.573	0.0171	21395	366
3	KDV-TLA	4.334	0.0107	21376	228
4	TLA-ABY	1.058	0.0006	18120	11



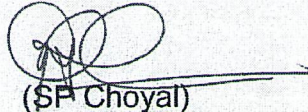
B/46937/Sigs 7(b)/3427/

05 Sep 2023

Project Head  
Mumbai Urja Marg Limited  
Office No-601, 6<sup>th</sup> Floor, Casablanca Sector-11  
CBD Belapur, Navi Mumbai-400614

**PTCC APPROVAL OF PADGHE (PG)-KHARGHAR 400KV D/C (QUAD) AND LILO  
OF PADGHE (PG)-KHARGHAR GHATKOPAR 400KV S/C LINE AT NAVI  
MUMBAI GIS (PG) THROUGH MUMBAI URJA MARG LTD (PKG-C)  
ASSOCIATED WITH WESTERN REGION SYSTEM STRENGTHENING SCHEME**

1. Refer your letter No MUML/PTCC/2023-2024/550 dt 19 Jun 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.



(SP Choyal)  
Lieutenant Colonel  
General Staff Officer Grade 1 (Communication)  
for Additional Director General (Telecommunication)

**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