



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-1131		
Induced Voltage (IV) Calculation for PTCC proposal of 220 kV 630 sqmm single core XLPE Copper UG cable from 220/66 kV Haraluru Muddenahallu KIADB to proposed 220/11 kV S/s of M/s Exide Solutions Limited at Plot NO. 11, 12, 13 & 14, Devanahalli Hardware Park, I/A (Length: 2.378 kms).		
S. No	Reference No.	Dated
(i)	CEE/SLDC/PTCC/F-3744/1266-75	13.06.2024
(ii)	SEE/R&D/EEE/KCO-126/F-200(555),200(589)/2024-25/	06.06.2024
(iii)	BSNL: SR-PTCC/SKT6153/6	04.11.2024
(iv)	South Western Railway: SG/SWR/PTCC/F-3744/2781	26.08.2024
(v)	Defense: B/46937/Sigs 7(b)/3995	15.10.2024

The PTCC proposal submitted vide reference (i) and (ii) has been examined. The LF induction on communication circuits of South Western Railway with respect to details furnished vide above reference (iv) has been computed. The voltages likely to be induced on paralleling communication cables of South Western Railway under Single Line to Ground fault condition is enclosed at Annexure-I. The screening factors as applicable have been considered.

DGM (PTCC), Southern Zone, BSNL vide reference (iii) and DG Signals, MoD vide reference (v) have given their NOC for charging the line.

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
220/11 kV S/s of M/s Exide Solutions Limited at Plot NO. 11, 12, 13 & 14, Devanahalli Hardware Park, I/A	60.72	37.5	0.46	2375	1551	89	44

As per the details submitted by BSNL, No Telephone exchange is falling within the EPR zone of proposed substation

Taking above into consideration, necessary action for issuance of PTCC route approval (RAC) shall be taken under intimation to this office in the stipulated period as specified in PTCC Manual and subsequent CLPTCC meetings.

As per the decision taken in 111th and 112th CLPTCC meeting, necessary instructions for “*Deemed Energization approval*” shall be specified while issuing RAC.

Encl.: As above

Chief Engineer

To,

1.	Divisional Engineer (PTCC), Southern Zone	O/o CGM, QA&I circle, 2 nd floor, Sanchar Complex, WMS Compound, Jayanagar, 5 th block, 9 th main, 47 th cross, Bengaluru- 560 041	
2.	GM (S&T), South Western Railway	South Western Railway Headquarter, Rail Soudha, Hubballi – 580 023	
3.	Chief Engineer, SLDC, KPTCL	State Load Despatch Centre, #28, Race Course Road, Bengaluru	Copy for information

ANNEXURE-I

CEA Case No.: KNK-1131			Map Scale : 1 cm= 500 m		
Name of the Power line: 220 kV 630 sqmm single core XLPE Copper UG cable from 220/66 kV Haraluru Muddenahalliu KIADB to proposed 220/11 kV S/s of M/s Exide Solutions Limited at Plot NO. 11, 12, 13 & 14, Devanahalli Hardware Park, I/A			Total Length : 2.378 km		
			S.R. Value : 30000 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/F-3744/2781 Date: 26.08.2024					
1	Yelahanka to Devanahalli	1.2	0.000019	18577	~0
2	Devanahalli to Chikkaballapur	Out of parallelism			

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

KNK-1131

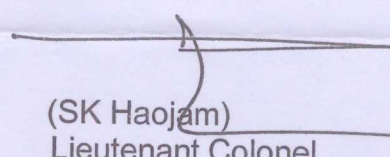
B/46937/Sigs 7(b)/3995

15 Oct 2024

Office of the Chief Engineer Electricity,
Karnataka Power Transmission Corporation Limited
State Load Despatch Centre,
28, R.C. Cross Road,
Bengaluru - 560 009

**PTCC PROPOSAL FOR RUNNING OF SC 220KV, 630SQMM SINGLE CORE
XLPE COPPER UG CABLE FROM EXISTING 220/66KV HARALURU
MUDDENAHALLI KIADB I/Q SUB-STATION TO PROPOSED 220/ 11KV SUB-
STATION IN THE PREMISES OF M/S EXIDE SOLUTIONS LTD., PLOT NO 11,
12,13 & 14, DEVANAHALLI HARDWARE PARK I/A, DEVANAHALLI TALUK ON
SELF EXECUTION BASIS**

1. Refer your letter No CEE/SLDC/PTCC/F-3744/1266-75 dt 13 Jun 2024 (copy att).
2. **No Objection Certificate (NOC) is accorded** based on inputs provided as per Map sheet received vide your letter mentioned above.
3. Documents alongwith map sheets (in original) are returned herewith for your further necessary action.



(SK Haojam)
Lieutenant Colonel
General Staff Officer Grade 1 (Communication)
for Additional Director General (Telecommunication)

Enclosures : As above

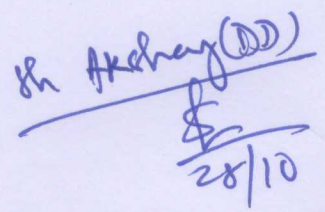
Copy to :-

✓ Chief Engineer, PSCD Division
Central Electricity Authority
Room No 702 (North Wing)
Sewa Bhawan, R.K. Puram, Sector-1
New Delhi-110066

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

- for information

Central Electricity Authority
PSCD Division
Diary No. 1356
Date 25.10.24


28/10

Annexure

Time line for various steps involved in PTCC clearance are specified in Appendix X to Chapter- I of PTCC Manual 2010 and further decision in CLPTCC meetings are given below. The relevant part is reproduced below:

For approval of power lines above 132 kV:

- | | | |
|-----|--|------------|
| (a) | For furnishing telecom details by P&T/Railways/Army. | 8/6* weeks |
| (b) | Scrutinizing the details, preparing additional copies and forwarding to Joint Secretary Power <i>by DET BSNL</i> | 1 weeks |
| (c) | Furnishing Induced Voltage (IV) calculation by Joint Secretary Power & endorsing copies to all concerned <i>by CEA</i> | 6/3* weeks |
| (d) | Furnishing recommendations by Railways/ Army | 2 weeks |
| (e) | Final examination and issue of certificate <i>by DET BSNL</i> | 2/1* weeks |

* Revised time line for power lines related to RE generation and traction circuits and for all power lines having length less than 5 km as per the decision taken in 107th CLPTCC meeting.